

Purchasing Week

MCGRAW-HILL'S NATIONAL NEWSPAPER OF PURCHASING

Vol. 2 No. 37

New York, N. Y., September 14, 1959

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\$6 A YEAR U.S. AND CANADA \$25 A YEAR FOREIGN

Sparkman Aims Double Blast at Purchasing Men

Auto Titans Grin At Prospects of Razzle-Dazzle '60

Detroit—1960, the year of the small car, holds prospects that excite even normally pessimistic auto executives.

Ford's veteran predictor, economist George P. Hitchings, has gone on record with a sales forecast of 6.8-million units (second only to 1955), including exports.

General Motors division managers, speaking at their various previews over the past few weeks, unanimously upped the ante to 6.9 million.

Truck sales, expected to exceed 970,000 this year, should pass the one-million mark in 1960, according to Herman P. Sattler, head of Chevrolet truck sales. He bases his prediction both on consumer optimism and the steady increase in the population of trucks aged six years or more. Nearly 58% of the nation's 10.3-million trucks are estimated to be in this elderly age bracket and are due for replacement.

The gloomy situation in the steel industry hasn't affected the (Turn to page 52, column 3)

Steel Stalls Inmates

Tallahassee, Fla.—Florida's first steel strike casualty will be the state prison.

State Purchasing Agent Dan D'Alemberte said the auto license tag shop at the prison last week had only enough steel to continue tag manufacture until the end of September. His search for a new source of supply is continuing, however, D'Alemberte said.

Capital Spending Booms Again Following the Lull

Washington—A new boom in capital plant and equipment expansion is getting underway among U. S. businesses.

Businessmen are dropping the caution for capital goods spending they displayed earlier in the year and are now scheduling sharply rising expenditures for plant and equipment facilities.

This is revealed in the new survey of capital spending plans released last week by the Commerce Department and the Securities Exchange Commission. Industry now estimates it will (Turn to page 51, column 3)

Where Do You Stand in Management?

The interview with Lillian Gilbreth that starts on page 28 of this issue is the first of a series dedicated to Purchasing Executive Development.

Articles in this series will appear monthly. The next one will be an exhaustive analysis of the purchasing management aspects of vendor relations. Such subjects as performance measurement, department policies, personal development for the purchasing manager, and decision-making in purchasing will be covered.



Purchasing Executive Development

Generally, three types of purchasing people will benefit from this new PURCHASING WEEK series: young men in the field who aspire to purchasing management positions, men who are now purchasing managers and want to better themselves, and men who are purchasing managers and aspire to top management positions.

PURCHASING WEEK welcomes and invites suggestions from any reader for topics to be discussed in this new series. The expression of needs made to us by purchasing executives is our best guide in offering the greatest possible service to the profession.

Steel 'Gray Market' Growing Active As Strike Enters Its Tenth Week

Chicago—Steel buyers are turning to a fast-developing "Gray Market" to bolster dwindling steel supplies.

Although concentrated in the Midwest, reports of premium pricing cropped up in key industrial areas throughout the country last week.

One hard-pressed firm published a blind ad in a newspaper classified column offering to pay a \$50,000 bonus for 1,000 ton steel sheets, specifying .047 gage and 26 x 77 and 36 x 71 sizes.

The situation was a clear indication that although most steel consumers hold inventories expected to carry through September and into October, settlement of the strike—now ending its ninth week—must come in the next two weeks to avoid widespread shortages and disrupted production.

Warehouse backlogs remained "reasonably" high except for an increasing list of popular demand products such as flat-rolled, cold-rolled coils, galvanized, light plate, and certain specific gages and sizes.

But the fact remained that many individual smaller companies which began feeling the supply pinch several weeks ago (Turn to page 52, column 4)

Senator Cites Woe In Small Business Chides Pentagon

Washington—U. S. Sen. John Sparkman, a champion of Olympic proportions where small business affairs are concerned, aimed a double-barrel blast at purchasing last week. He declared:

"Purchasing executives in both government and industry are playing the major role in shaping the fortunes of small business in the United States. And right now, those fortunes are looking pretty meager."

The busy Alabama Democrat, exploding his views on purchas-



SEN. JOHN SPARKMAN

ing malpractices and their ramifications in an interview with PURCHASING WEEK stated:

"Too many purchasing people, mainly in government but also in defense industries, are taking the easy way out and ignoring their foremost responsibility—performing the purchasing function to the best of their ability."

"The Department of Defense, for instance, conducts too large (Turn to page 24, column 1)

States Slam Lid on Foreign Imports

New York—State and local governments are rapidly clamping the lid down on foreign imports, either through special statutes or purchasing policies favoring U. S. industry.

Fifteen states already have passed laws banning the purchase of foreign goods. Many other state, county, city, and local governments have established rigid policies which make it virtually impossible for foreign manufacturers to win a bid.

The majority of governmental purchasing officials responding to a PURCHASING WEEK survey on the subject of foreign vs. domestic goods pointed out that the growing list of imports was (Turn to page 47, column 1)

West Germany Aims At New U.S. Markets

Bonn, Germany — Vibrant West German manufacturers, riding the crest of the post-war economic wave of recovery, are aiming for their first balanced trade account with the U. S.

A spot check of German manufacturers' associations, firms, and business circles by PURCHASING WEEK gave no indication that German exporters plan to push special lines in the U. S. other than those already established.

There is a deep-seated fear that extraordinary success in any single branch or a surge into a (Turn to page 21, column 1)

10 Fast Hints on Improving Your Report Writing

If you have trouble putting words together effectively, the ten hints (right) will show you how to avoid bad practices. They won't tell you everything you need to know about writing, but they do expose the chief sins that writers of business reports usually commit. If you study these pointers carefully, then apply them to your own writing, you will be able to recognize and overcome many of those irksome problems that crop up every time you have to write a report. (For details, turn to p. 26.)

1. Keep Your Language Natural
2. Avoid Passive Verbs
3. Avoid Abstract Nouns
4. Make Your Proposals Concrete
5. Avoid Wordy Phrases
6. Remember You're the Expert
7. Put Your Proposals Up Front
8. Keep Your Main Points Clear
9. Don't Be Afraid of Long Sentences
10. Revise Your Report

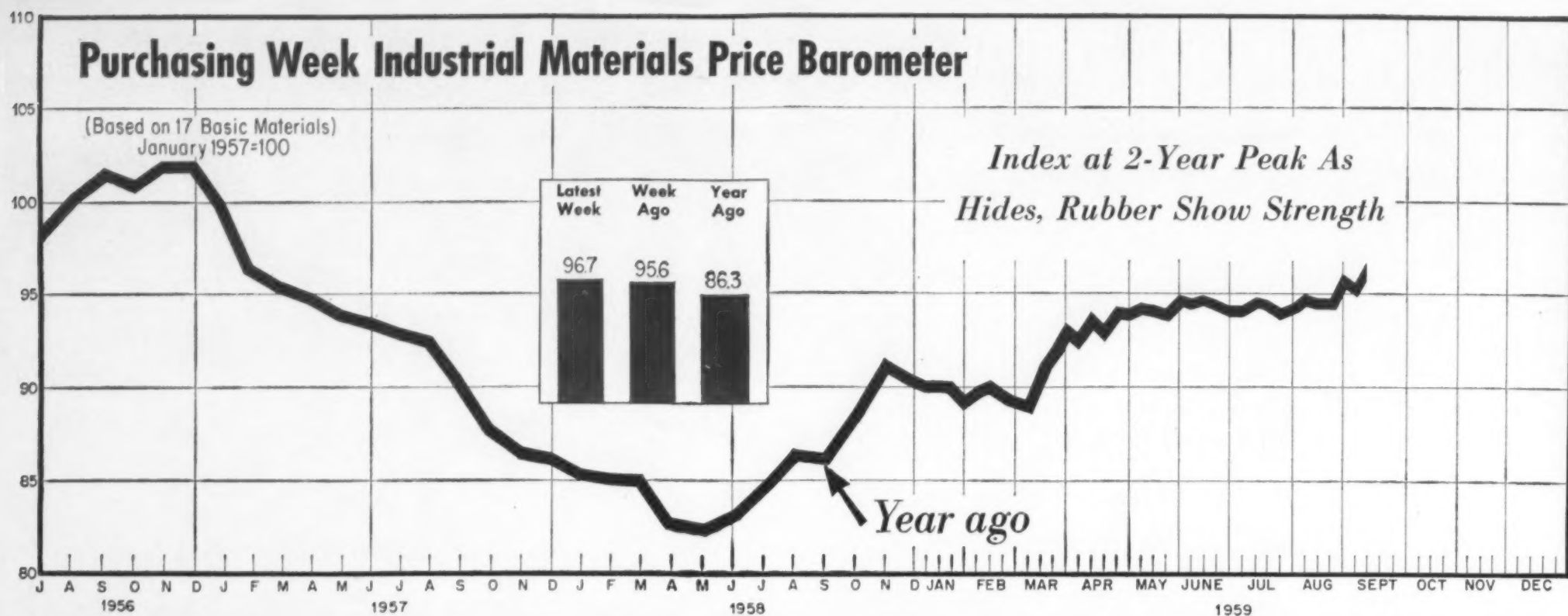
Purchasing Perspective

On the Verge Of a Splurge

To gage the high-riding optimism that flavors the 1960 business outlook, keep in mind three major factors that figure strongly in the course of future events:

- The continuing upsurge in capital spending plans.
- After-effects of the steel strike as reflected in inventory rebuilding activity.
- Consumer demand and burgeoning credit requirements.

Capital spending—The first nine months of 1959 have seen a steady rise in industrial confidence as charted in expansion and modernization outlays (see story col. 2). Latest surveys indicate this type of business expenditure for bigger and better production facilities—with emphasis on cost-cutting techniques and processes—is zooming considerably beyond earlier expectations (Turn to page 51, column 1)



This index was designed by the McGraw-Hill Department of Economics to serve as an overall sensitive barometer of movements in industrial raw

material prices. The index is not intended to give price movements of specific commodities. The items used are important only in that, together, they re-

fect the current general market trend in sensitive industrials. Weekly prices for most of the items covered are published in "Commodity Prices" below.

This Week's Commodity Prices

	Sept. 9	Sept. 2	Year Ago	% Yrly Change
METALS				
Pig iron, Bessemer, Pitts., gross ton	67.00	67.00	67.00	0
Pig iron, basic, valley, gross ton	66.00	66.00	66.00	0
Steel, billets, Pitts., net ton	80.00	80.00	80.00	0
Steel, structural shapes, Pitts., cwt	5.50	5.50	5.50	0
Steel, structural shapes, Los Angeles, cwt	6.20	6.20	6.20	0
Steel, bars, del., Phila., cwt	5.975	5.975	5.975	0
Steel, bars, Pitts., cwt	5.675	5.675	5.675	0
Steel, plates, Chicago, cwt	5.30	5.30	5.30	0
Steel scrap, #1 heavy, del. Pitts., gross ton	38.00	38.00	42.50	-10.6
Steel scrap, #1 heavy, del. Cleve., gross ton	38.00	38.00	40.00	-5.0
Steel scrap, #1 heavy, del. Chicago, gross ton	40.00	38.00	45.50	-12.1
Aluminum, pig, lb	.247	.247	.247	0
Secondary aluminum, #380 lb	.238	.238	.217	+9.7
Copper, electrolytic, wire bars, refinery, lb	.309	.315	.261	+18.4
Copper scrap, #2, smelters price, lb	.255	.25	.208	+22.6
Lead, common, N.Y., lb	.13	.13	.108	+20.4
Nickel, electrolytic, producers, lb	.74	.74	.74	0
Nickel, electrolytic, dealers, lb	.74	.74	.74	0
Tin, Straits, N.Y., lb	1.02	1.024	.945	+7.9
Zinc, Prime West, East St. Louis, lb	.11	.11	.10	+10.0
FUELS				
Fuel oil #6 or Bunker C, Gulf, bbl	2.00	2.00	2.25	-11.1
Fuel oil #6 or Bunker C, N.Y. barge, bbl	2.37	2.37	2.57	-7.8
Heavy fuel, PS 400, Los Angeles, rack, bbl	2.15	2.15	2.50	-14.0
LP-Gas, Propane, Okla. tank cars, gal	.05	.04	.05	0
Gasoline, 91 oct. reg. Chicago, tank car, gal	.12	.12	.123	-2.4
Gasoline, 84 oct. reg. Los Angeles, rack, gal	.112	.112	.12	-6.7
Kerosene, Gulf, Cargoes, gal	.081	.081	.089	-9.0
Heating oil #2, Chicago, bulk, gal	.091	.091	.091	0
CHEMICALS				
Ammonia, anhydros, refrigeration, tanks, ton	86.50	86.50	82.50	+4.8
Benzene, petroleum, tanks, Houston, gal	.31	.31	.31	0
Caustic soda, 76% solid, drums, carlots, cwt	1.80	4.80	4.80	0
Coconut, oil, inedible, crude, tanks, N.Y. lb	.188	.18	.154	+22.1
Glycerine, synthetic, tanks, lb	.278	.278	.278	0
Linseed oil, raw, in drums, carlots, lb	.165	.163	.167	-1.2
Phthalic anhydride, tanks, lb	.165	.165	.205	-19.5
Polyethylene resin, high pressure molding, carlots, lb	.35	.35	.325	+7.7
Rosin, W.G. grade, carlots, fob N.Y. cwt	10.50	10.40	9.70	+8.2
Shellac, T.N., N.Y. lb	.31	.31	.31	0
Soda ash, 58%, light, carlots, cwt	1.55	1.55	1.55	0
Sulfur, crude, bulk, long ton	23.50	23.50	23.50	0
Sulfuric acid, 66% commercial, tanks, ton	22.35	22.35	22.35	0
Tallow, inedible, fancy, tank cars, N.Y. lb	.063	.063	.083	-24.1
Titanium dioxide, anatase, reg. carlots, lb	.255	.255	.255	0
PAPER				
Book paper, A grade, Eng finish, Untrimmed, carlots, CWT	17.20	17.20	17.00	+1.2
Bond paper, #1 sulfate, water marked 20 lb, carton lots, CWT	25.20	25.20	24.00	+4.1
Chipboard, del. N.Y., carlots, ton	95.00	95.00	100.00	-5.0
Wrapping paper, std, Kraft, basis wt. 50 lb rolls	9.00	9.00	9.00	0
Gummed sealing tape, #2, 60 lb basis, 600 ft bundle	6.30	6.30	6.40	-1.6
Old corrugated boxes, dealers, Chicago, ton	21.00	21.00	23.00	-8.7
BUILDING MATERIALS				
Brick, del. N.Y., 1000	41.25	41.25	41.25	0
Cement, Portland, bulk, fob N.Y., bbl	4.18	4.18	4.24	-1.4
Glass, window, single B, 40" bracket, box, fob N.Y.	7.90	7.90	7.00	+12.9
Southern pine lumber, 2x4, s4s, trucklots, fob N.Y., mftbm	127.00	129.00	129.00	-1.6
Douglas fir lumber, 2x4, s4s, carlots, fob Chicago, mftbm	141.00	142.00	132.00	+8.5
TEXTILES				
Burlap, 10 oz, 40", N.Y. yd	.10	.099	.106	-5.7
Cotton, middling, 1", N.Y. lb	.331	.333	.362	-8.6
Printcloth, 39", 80x80, N.Y., spot, yd	.195	.195	.177	+10.2
Rayon twill, 40 1/2", 92 x 62, N.Y., yd	.26	.26	.22	+18.2
Wool tops, N.Y., lb	1.745	1.725	1.55	+12.6
HIDES AND RUBBER				
Hides, cow, light native, packers, Chicago, lb	.295	.282	.162	+82.1
Rubber, #1 std ribbed smoked sheets, N. Y., lb	.395	.39	.291	+35.7

September 14-20

Price Perspective

Borrow Now Before Bigger Squeeze

It's going to be a lot harder financing inventories in the next few months—thanks to the growing credit squeeze.

And it's going to be a lot more expensive, too.

There's little indication that the almost steady uptrend in interest rates is over. In fact, the current 5% prime rate—now at a 28-year high—could even go higher before it levels off.

Easier money may not return until spring of 1960—when a growing budget surplus will cut back on federal borrowing.

One way to ease the squeeze: Start lining up late '59 and early '60 credit needs now. Make your arrangements before strike settlements kick off another round of inventory accumulation.

Current credit stringency is due to an unhappy combination of factors:

- **Business needs**—Uptrend in business, when added to increased retail and wholesale needs to meet expanded sales, has helped put the squeeze on funds.

- **Federal government**—Uncle Sam has just completed financing a record peacetime deficit of \$12.5 billion.

- **State and local needs**—States and municipalities are requiring more and more money to build schools, roads, and other local improvements. These outlays are running 7-8% above '58.

- **Construction**—The building boom also has taken its toll. Non-farm mortgages (\$20,000 or less) are running 33% above year-ago levels.

- **Consumer credit**—Millions of families are returning to on-the-cuff buying after '58's brief respite (see story p. 3).

How will this tightness affect future business plans?

It's hard to give a general answer to this because effects will vary by industry and by size of firm.

However, this much is sure: Small firms will feel the pinch more than the larger ones. Such firms usually are regarded as greater risks by bankers—and as such they will find it harder and harder to get needed working capital for inventories and other needs.

Housing, too, also may be in for a squeeze.

Many home buyers already report mortgages more expensive and harder to come by. In fact housing starts have shown signs of easing ever since they hit their peak in April.

Consumers also may feel the pinch. Installment buying of "big ticket" items could be hurt by tighter money, higher interest rates.

But despite the squeeze in some specific areas, over-all business activity won't be affected too much.

Uncle Sam's fiscal experts would never permit it. If the improbable situation should develop where credit actually starts putting a damper on business—then you can expect quick monetary action.

If there's one thing the Federal Reserve Board is sensitive to—it's criticism of nipping booms in the bud.

Secondly, costly money, per se, doesn't always have the expected effect of holding down business expansion.

With today's complex industrial setup, a rise in interest rates doesn't always discourage investment. If you're spending millions on a new plant—a 1/2% interest rate rise isn't very likely to change your mind.

Paradoxically enough, rising interest rates may actually have a stimulating effect: Borrow now to avoid even higher rates tomorrow.

Peak Consumer Credit Is Bolstering Economy

New York—Peak levels of consumer credit are giving the economy an added shot in the arm. New credit extended—jumping sharply above repayments—has been beefing up demand, forcing many manufacturers to rejigger their production schedules upward.

But the increase hasn't been without its headaches. The record consumer demand for credit is bumping up against heavy business and government money requirements.

Result: intensification of the credit squeeze which recently forced the prime borrowing rate up to 5%—a 28 year high.

The latest July figures on installment credit tell the story (see chart, right). The \$500-million rise in credit outstanding during July (seasonally adjusted) was the biggest in nearly four years.

The boost was brought about by a whopping \$4.1 billion in new installment buying (credit extensions) during the month. That was more than enough to balance out the \$3.6 billion in repayments made during that same period.

Not a 'One Shot'

Moreover, the rise in installment credit extensions is not just a one-shot affair. It's been going on ever since such extensions hit a low point of \$3.2 billion in March 1958. The current \$4.1 billion extended is a significant 28% above that low figure.

On-the-cuff auto purchases have been the most important factors in this credit rise—reflecting this year's step-up.

Just compare last year's volume of automobile paper to the current level and you see the role of automobiles in the new consumer borrowing trend. In the first half of 1958, automobile buyers reduced outstanding auto debt by some \$800 million. For the same period this year, buyers had increased the volume of auto paper outstanding by a sharp \$1.3 billion.

Led by this big new car credit boom, total installment outstanding at the end of July soared to \$36.4 billion—nearly \$3.4 billion above the amount outstanding a year ago.

And what goes for installment credit outstanding goes equally well for total consumer credit outstanding. The latter, which also includes personal loans and charge accounts, zoomed up to a new peak in July—\$4.3 billion above a year ago.

Why the sudden surge in credit? Four factors can help explain it:

- **Record Employment**—With some 67½ million employed, people are more willing to go into debt. They feel more secure about the future.

- **Record Incomes** — Peak wages and salaries also are behind the credit rise. With families earning more than ever before, they are more than willing to go into hock.

- **Reduction of Indebtedness**—The repayment surge of early 1958 reduced the indebtedness of many families—putting them in a much better fiscal position.

- **Automobile Cycle**—Install-

ment credit always follows auto sales. 1958 was a poor year so credit also dropped. This year is relatively good for car sales so consumer credit also showed a relatively similar upturn.

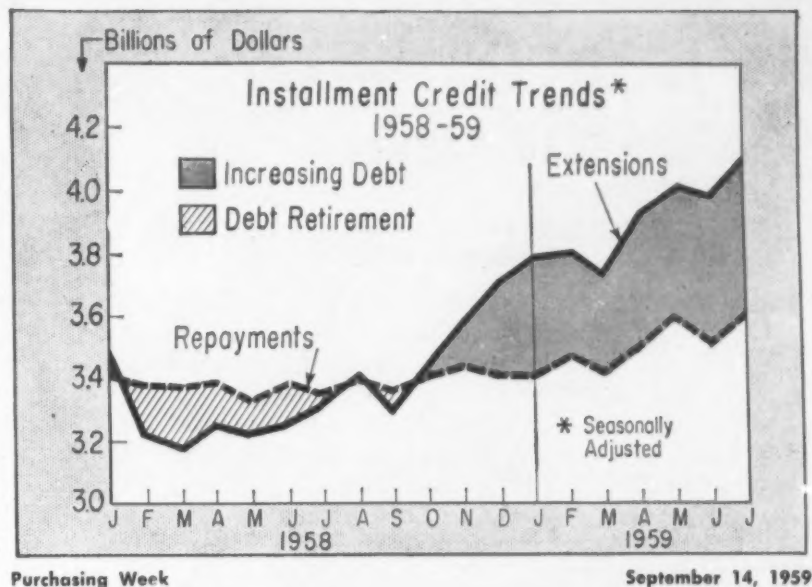
The big question today is: Has credit gone too far? To answer this you have to find a frame of reference or yardstick with which to compare credit.

Income provides, perhaps, the best of these. Debt in relation to income gives a fair picture of the over-all ability of consumers to

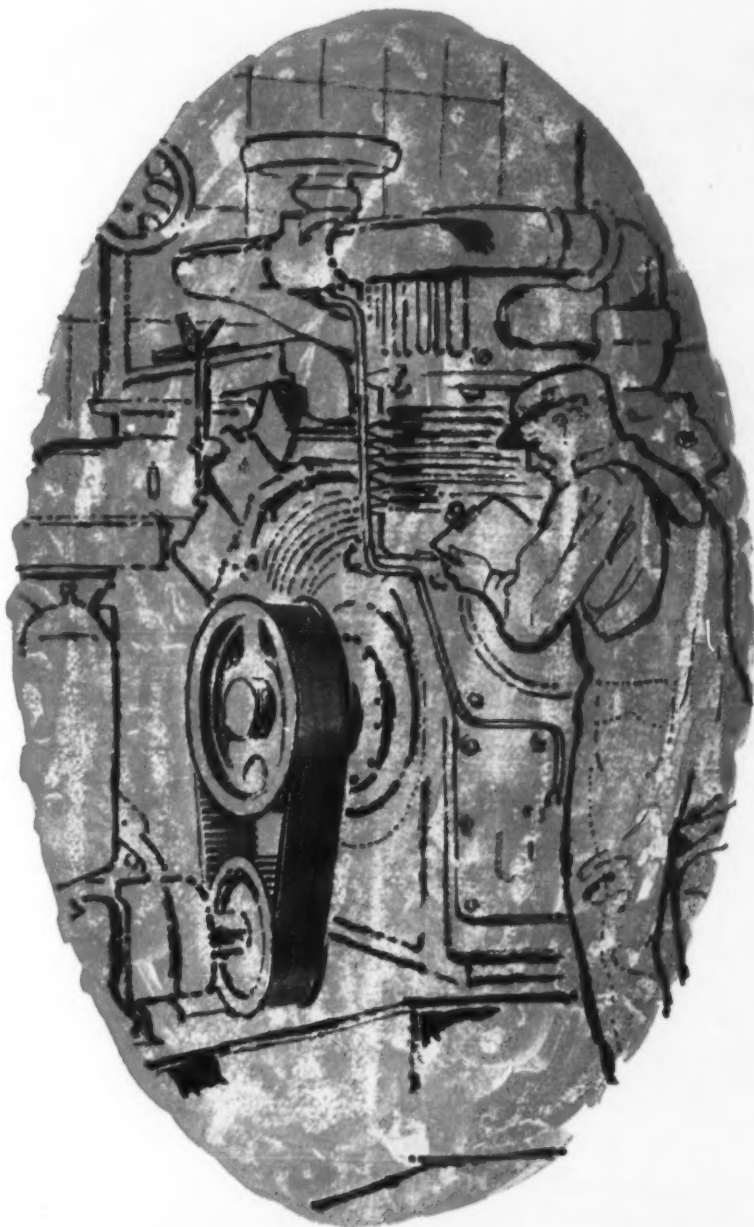
carry a given amount of credit. Compare this ratio over periods of time and you can judge whether the consumer position is getting worse or better.

Today we are in debt to an amount comprising 14% of disposable income. In 1955, at the start of the last business boom, the debt-income ratio was exactly the same.

So at least from the "ability to carry debt" viewpoint, it would seem we are no worse off, credit-wise, than we were four years ago in 1955.



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Washington Perspective

Flags Fly For
Tricky Niki

Officially, Washington welcomes Soviet Premier Nikita Khrushchev to the U. S. this week with all the colorful diplomatic parading and cannonading that goes with a state visit.

Unofficially, what policymakers expect—at best—out of the visit are the modest goals Eisenhower himself has outlined cautiously. Those are an intangible thawing of cold war chills, and the possible discovery of broad areas in which the two powerful nations' leaders can dig the groundwork for future compromise.

The nearest thing to a "businessman's" issue likely to arise in the talks is the question of expanding East-West trade.

Despite speculation to the contrary, there are still no indications that the U. S. will relax its strategic trade controls on license to export to Russia, or permit the granting of long-term credits, government or private.

Top trade experts in Washington believe firmly that Russia primarily wants only those warmaking potentials the U. S. will continue to refuse her, and credits to help finance her own economic development. Washington won't pay that price for any political concession in return, and officials here don't think Moscow will offer any political concession for any less than that. The feeling is that trade means more to Russia from a propaganda standpoint than as a real economic tool.

Further, trade policy people point out, there is room for Russia to both buy and sell more in the U. S., if it really wants to.

The relatively insignificant trade that now exists between the two countries has shown recent signs of picking up. First-quarter 1959 U. S. exports to Russia were \$2.4 million as compared to \$3.4 million for all of 1958, and imports rose to \$8.3 million as compared to \$17.5 million for last year.

Recent U. S. purchases and sales have made news—the benzene, wood pulp, and school laboratory equipment bought, and the carbon steel sheets, plastic pipe extruding equipment, and synthetic fiber processing machinery sold.

But these deals except for the benzene don't account for much of the traditional Russian exports of raw materials. Nor do they compare significantly to U. S. sales to Russia of rubber, steel products, and coal-tar chemicals.

Still and all, Khrushchev will get the red carpet treatment in the hopes that at least he will get a better understanding of the U. S., and also to show the world that the U. S. is willing at least to talk with open hand.

The Russian premier will have plenty of opportunity to talk to Eisenhower and other high Administration officials—several hours Tuesday afternoon to begin with—as well as to businessmen and industrial leaders around the country.

Among the latter, he is likely to meet and eat with the Economics Club in New York, and a group of 30 leading industrialists at a private dinner in Washington when he returns from the West Coast.

Average Earnings for Purchasing Department Occupations in Manufacturing

Occupation and sex	Atlanta 5/59	Chicago 4/59	Milwaukee 4/59	New York City 4/59	Portland (Oregon) 4/59
Office clerical (women)					
Average straight-time weekly earnings †					
Clerks, file (class A).....	\$75.00	\$71.50	\$69.50	\$73.00	\$67.00*
Office girls.....	50.50*	61.50	57.50	52.50	49.00*
Secretaries.....	83.00	91.00	89.00	92.50	81.00
Stenographers, general.....	68.50	77.00	71.00	75.00	73.50
Typists, (class A).....	74.50	73.00	73.50	73.00	74.50
Plant jobs (men)					
Average straight-time hourly earnings ‡					
Laborers, material handling.....	1.53	1.99	2.17	2.09	2.11
Order fillers.....	1.48	2.06	1.99	1.70	2.23
Receiving clerks.....	1.80	2.27	2.22	2.13	2.39
Forklift operators.....	2.00	2.30	2.32	2.42	2.25
Truckers, power (other than forklift)	—	2.33	2.28	2.34*	2.35

* All-industry average.

† Average salaries paid for standard workweek.

‡ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

LATEST FIGURES given to Purchasing Week by the Wages and Industrial Relations Division of the U. S. Department of Labor indicate an easing in the trend of sharply rising wage rates in certain areas. Large-

est yearly boost in the cities reported above was 3.9% for plant jobs in New York City. Year-to-year earning boosts in office and plant jobs in Atlanta and plant jobs in Portland were under 3%.

Shortages Spark Copper Price Tag Rises

New York—Strikes and fears of shortages are beginning to have their effect on the volatile copper market. They're the basic factors behind the recent uptrend in prices.

The rises have permeated the whole copper price structure. First it was the 3¢ a lb. boost by the only major custom smelter still operating. Then a few days ago it was followed by the 1½¢ boost by the major producers who still have metal to sell.

Copper fabricators are the latest to climb on the price bandwagon. They've announced price boosts on a wide range of wire and mill products. Generally, they reflect the increased cost of the basic copper metal.

You can look for continued upward pressure as long as the current strike persists. While it won't result in runaway prices—thanks to heavy stocks—it will mean more expensive copper in the weeks to come.

Actually, there is nothing sur-

prising in this trend. A metal as volatile as copper is bound to reflect changes in supply. And these changes are bound to be pretty significant if production isn't resumed pretty soon.

How high the price climbs in the next month or so depends on several factors including:

• **Strikes**—The duration of the current mine and smelters strike can't be underestimated. The 75% drop off in domestic production is bound to have an accelerating effect on the market.

• **Stocks**—The extent of current fabricator supplies also is significant. As of now, most firms still have healthy stocks. But the number of such firms will diminish every day.

• **Dock Strike**—The possible dock strike on Gulf and Atlantic Coasts on Oct. 1 must also be considered. It could cut fabricators off from foreign supplies.

• **Foreign Prices**—The volatile

London market will play its customary role. An upward trend there would make it more expensive to import.

Last week's 1½¢ a lb. price boost by producers isn't as startling as first glance might indicate. Actually it only restores a reduction of the same amount made on July 13. At that time, reduced demand—plus a more optimistic labor outlook—forced the cut.

It's a reversal of these factors that is now behind the current rising price trend. Fabricator demand already is growing—and with the strike likely to persist into October—more and more buyers will enter the market.

Luckily, stocks are in pretty good shape. This will tend to diminish the possibility of any runaway price pattern—at least for the next few weeks.

Total fabricator stocks at the end of July were 20% above the 1958 level. The statistics on world refined stocks—62% above last November's low—are another optimistic sign.

Price Changes for Purchasing Agents

Item & Company	Amount of Change	New Price	Reason
INCREASES			
Flaxseed, cash, bushel.....	.05	\$3.35	
Truck Tires, original, manufacturers.....	3%		upped rubber tags
Spearmint Oil, lb.....	.25	\$5.00	
Lemongrass Oil, lb.....	.10	\$1.20	ship. delay
M-Dinitrobenzene, technical, (Oct. 1), lb.....	.02	.26	
2, 4-Dinitrochlorobenzene, tanks, (Oct. 1), lb.....	.02	.17	
2, 4-Dinitrophenol, technical, (Oct. 1), lb.....	.04	.41	
Carnauba Wax, #3 N. C., crude, lb.....	.05	.80	
Carnauba Wax, #1 yellow, lb.....	.06	\$1.18	
Arabic Gum, amber, 10 bags, lb.....	.015	.295	
REDUCTIONS			
Fir Plywood, sanded, ¼-in., Nthwst. Mills, mftbm.....	\$4.00	\$68.00	overproduction
Fir Plywood, unsand., sheathing, Nthwst. Mills, mftbm.....	\$4.00	\$92.00	overproduction
Ammonium Perchlorate, Am. Potash, stand., clts., lb.....	.05	.29	upped demand
Aluminum Triplex Cable, N-SD type.....	3.7%		
Silicone Fluid Emul., Dow Corning, 8, 35, 35A, 35B, 36.....	5%		mkt. expansion
Dimethyl Polysiloxane, "200 Fluid," Dow Corning.....	5%		mkt. expansion
Marine Diesel Fuel, Fuel Oil Corp., Detroit, bbl.....	.105	\$4.305	
Gasoline, regular, fair trade, No. Carolina, gal.....	.01	.199	
Gasoline, premium, fair trade, No. Carolina, gal.....	.01	.239	
Gasoline, del. tnkwgn., Mobile, E. Boston, Revere, gal.....	.009	.107	
Mercury, 76-lb. flask.....	\$2.00	\$226.00	
Cottonseed Oil, Valley, lb.....	.0075	.1075	
Palm Oil, clarified, tanks, lb.....	.002	.1188	
Hydrocortisone, kilo lots, gram.....	.35	\$1.90	
Cortisone, kilo lots, gram.....	.15	\$1.75	
Potassium Stannate, lb.....	.005	.784	
Sodium Stannate, lb.....	.006	.642	
Tin Crystals, anhydrous, lb.....	.006	\$1.007	
Copper Wire & Cable, Amer. Brass, Anaconda, lb.....	.015		copper boost
Gasoline, reg., Midcontinent Refin., gal.....	.0025	.1225	oversupply

Portable Insulating Foam Sprayer Cuts Equipment Cost, Saves Time

(Continued from page 1)
oped—at a rate of 10-20 board feet per minute.

Standard paint spray equipment teams with the special gun to spray the two low-viscosity components. The spray gun meters the components and mixes them externally. They reach the surface as a liquid and begin almost instant expansion. The foam rises and sets tack-free (dry to the touch) in less than five minutes.

Plant maintenance crews—instead of contractors—can easily install the protective foam, Wyandotte claims. And any painter can paint the surfaces with normally-used pigments. Wyandotte reports the system yielded cost savings of up to 75% on critical installations at its own plant.

Wyandotte spokesmen say the new system will give maintenance engineers an effective low-cost

weapon to use against corrosion—which costs hundreds of millions of dollars in the U. S. alone.

Key cost and time-saving advantage of the foam spray is that you need only remove the most obvious flake rust before spraying. But the spray won't stick to aluminum and polished polystyrene. Research continues on this front.

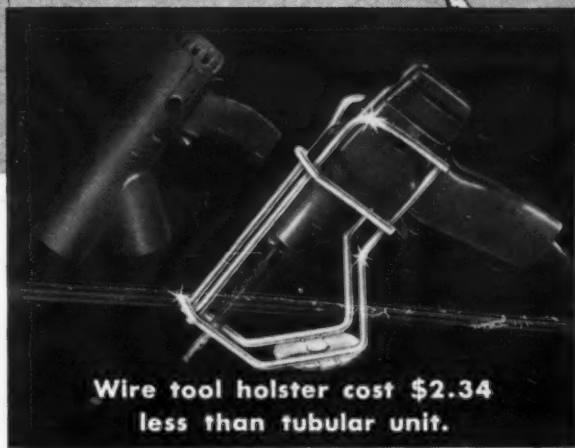
Likely applications of the new insulation system include cold rooms, large pipes, and corrugated structures, such as quonset huts. Home construction use will wait until the fire-retardant properties of the foam, which do not yet meet many building code specifications are improved.

Wyandotte is making the ingredients available to custom formulators all over the U. S. They will mix the materials ready for use by paint and material distributors.

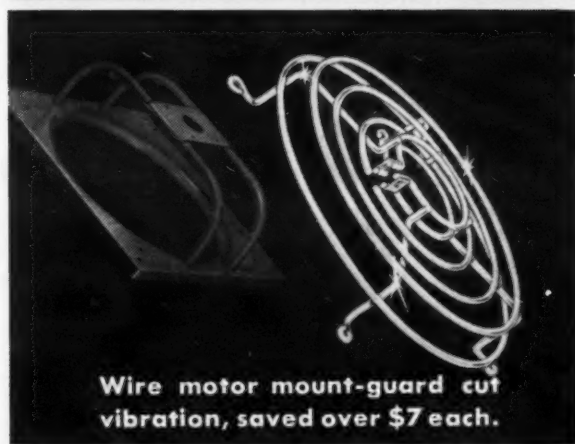
Titchener Wire/Strip Value Analysis Design Package



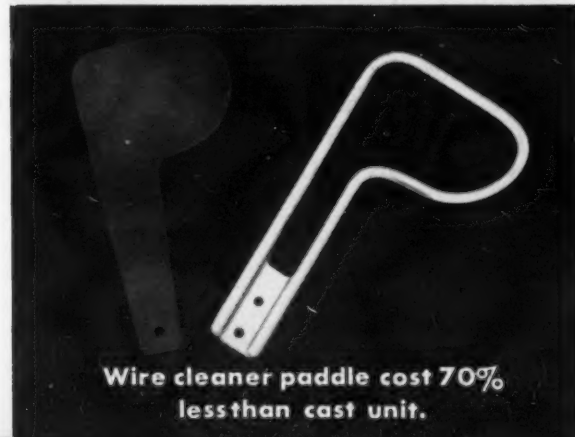
Fan mount and protective cage designed and produced for Buffalo Forge Co., Buffalo, New York.



Wire tool holster cost \$2.34 less than tubular unit.



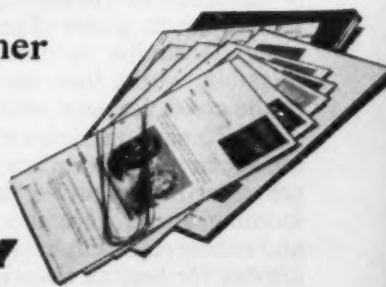
Wire motor mount-guard cut vibration, saved over \$7 each.



Wire cleaner paddle cost 70% less than cast unit.

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Repercussions Hang in the Balance of the Budget

Washington—Budget balancing is going to be a mighty precarious task for Administration leaders in fiscal 1960 and 1961. How successful they are at it can have important repercussions on the problems of inflation and on overall demand.

Here in a nutshell is how the budget situation now shapes up:

For fiscal 1960 (July 1, 1959 to June 30, 1960) it will be nip and tuck as far as balancing goes. But if all goes well, fiscal 1961 should come out with a surplus of about one or two billion dollars.

How realistic these estimates are will depend upon:

• **Strikes**—How will steel and other strikes affect corporate profits and hence the corporate tax take?

• **Business outlook**—How will business fare? The better activity is, the higher Uncle Sam's revenues.

• **Defense spending**—How successful will the Administration be in keeping defense spending at or below current \$41-billion level? This is the key outlay item accounting for more than 50% of the budget.

• **New programs**—What will be the costs of new congressional spending plans and increased interest payments? And how successful will projected economies turn out to be? It's hard to give exact answers to these major questions at this time.

The chart above, right gives a bird's eye picture of the budget situation—receipts and outlays—over the past 15 years.

Two factors stand out. First, periods of deficit have tended to be longer and deeper than periods of surplus. Secondly, both receipts and outlays have been in sharp uptrend over entire period.

Note that P. W. projections for 1960 and 1961 give some hope for balancing. While there's little indication of any reversal in trend toward higher outlays and revenues, it now seems likely that we can avoid deficits.

This holds even though spending in fiscal 1960 will come to \$78.5 billion—\$1.5 billion above the President's earlier \$77 billion estimate. A precarious balancing is made possible by expectations that fiscal 1960 revenues will come close to \$79 billion.

For fiscal 1961 (the year beginning July 1960), outlays are slated for another \$2.5 billion climb—putting them close to the \$81-billion mark as automatic increases in current programs push up the total bill.

Interest payments alone next year are expected to rise by more than \$½ billion—pushing them over the \$9-billion mark. And this item is impossible to pare.

Other big increases also loom on the fiscal 1961 horizon. A several-hundred-million-dollar increase is expected in foreign aid—much of it due to the expanding Development Loan Fund program. A similar increase is due in public works that are already in the construction stage.

While over-all defense spending seems to be stabilizing, there are a lot of expensive programs looming ahead here too. Space and rocket research, in particular, are due for healthy boosts.

The revenue side of fiscal 1961,

however, seems able to take care of these boosts. A booming economy (and that's what most economists see for fiscal 1961) should bring some \$83 billion into federal tax tills. That's \$4 billion above the estimated fiscal 1960 level of \$79 billion.

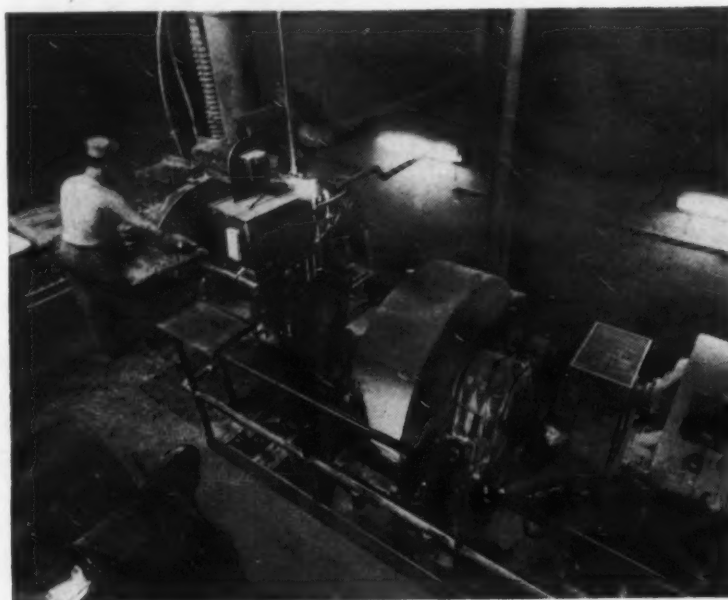
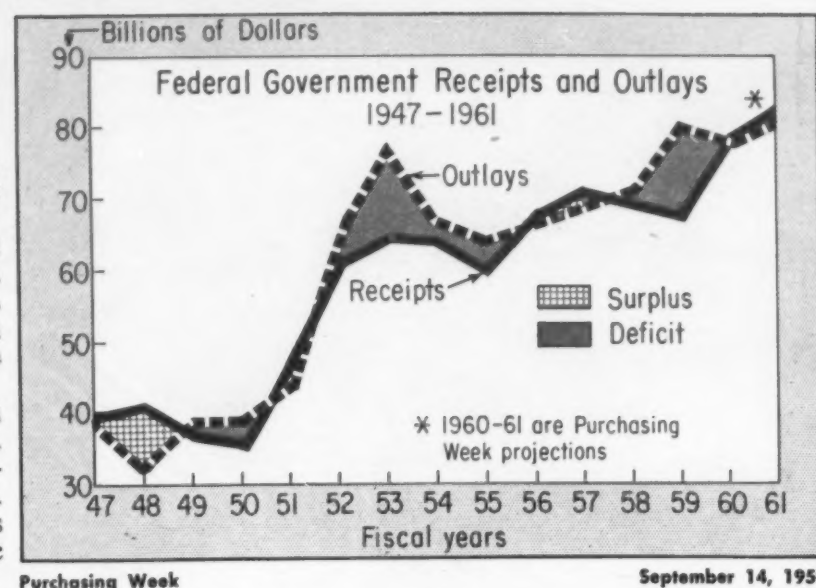
So even with an expected \$2.5-billion boost in expenditures over fiscal 1960, an even bigger revenue boost should leave a surplus of about \$2 billion.

Of course, this is still a pretty small surplus when compared to \$12.5 billion deficit in the fiscal

year which ended on June 30. And it's hardly enough to warrant any tax cut.

But that doesn't mean that there won't be cries for such a cut. The presence of a surplus plus the fact that 1960 will be an election year makes such pressure almost certain.

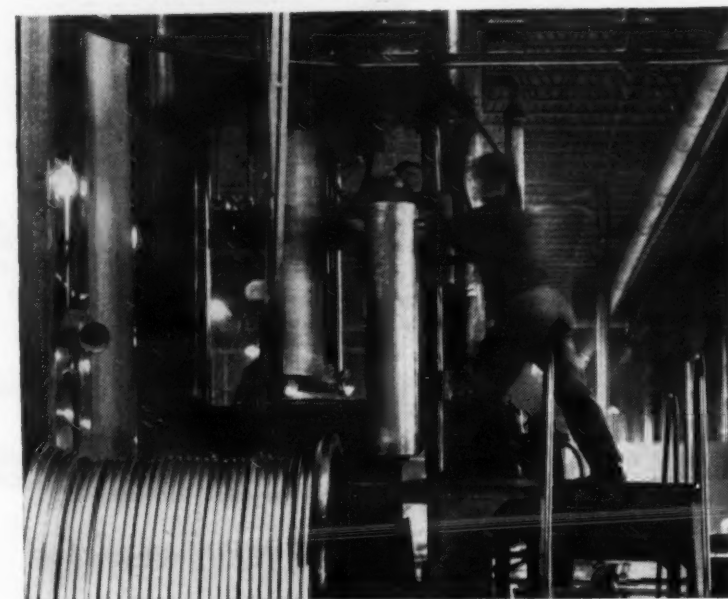
But you can't place too much stock in anything being done. Both the President and the Treasury are opposed to any tax cut. It's more likely that any surplus will be used to reduce the public deficit.



1. Compounding rubber to be processed into industrial hose. This spiral flow mixer at the Industrial Hose Plant of Swan Rubber Company is lubricated with Gulfcrowne Grease and Gulf Harmony oil.



2. Sheeting-off compounded rubber flats, this processing mill is on the floor directly below the mixer. Gulfcrowne Grease—a highly stable, water-resistant type—keeps the roll bearings in this mill operating smoothly.



5. Extruding lead overcoating on hose, this lead press has its hydraulic system filled with Gulf Harmony. Lead covering becomes template against which outside diameter of hose is forced under steam pressure, then cured.



6. Braiding reinforcement fibers on industrial hose. The high speed spindles on these braiders at Swan Rubber's Industrial Hose Plant are lubricated with Gulf Precision Grease. #2. Gulf Harmony oil lubricates the spindle decks.

Swan Rubber cuts downtime 30% on 300 processing GULF MAKES THINGS

"Over 10 years ago, with the help of Gulf engineers, we set up a comprehensive lubrication plan for our rubber hose production. Since then we have reduced downtime by more than 30% on more than 300 basic processing machines, and hundreds of auxiliary units, using only 6 Gulf greases and 3 Gulf oils."

That's the report from C. B. Jacobs, Plant Engineer of Swan Rubber Company, Bucyrus, Ohio—world's largest

manufacturer of garden hose, and also a major producer of industrial hose. 95% of the lubricants in this plant are supplied by Gulf.

Shown above are a few highlights in the processing of industrial hose at Swan Rubber, where Gulfcrowne Grease, Gulf Harmony oil and other Gulf lubricants made possible a 30% reduction in downtime.

In over 10 years of Gulf lubrication of Swan's ma-

Aluminum Production, Shipments Surge to New High in 1959

Aggressive Research Developments Help Growth Pattern Move Forward; Strike Now Seems Remote

New York—A record year for aluminum production and shipments is in view for 1959. Rising level of industrial output and aggressive process and product developments on the part of the major producers have helped the white metal surge forward sharply in its over-all growth pattern.

This optimistic outlook could be dimmed only by a strike against the major domestic producers on the part of the United Steelworkers of America and the Aluminum Workers' International Union. But at present, chances

of such a walkout seem fairly remote. With major contracts having expired on Aug. 1, many in-

dustrial observers felt a strike was likely. But both unions and the major companies involved agreed late in July to extend the old contract until Nov. 1, or for 30 days following a contract settlement in the steel industry, whichever is earlier. The absence of a walkout means that aluminum production and sales will keep moving along at a healthy pace, though the third quarter will show a slackening in activity from earlier parts of the year. That's because both producers

and users will tend to pare much of the stocks that were built up in the first half of the year in anticipation of the strike which didn't come. Increased aluminum demand as a result of substitution for steel is proving to be the case only in a very small number of instances. These seem to be limited to component parts and possibly a few construction situations. Most manufacturers are just not able to switch economically from steel to aluminum

within a short space of time (see P. W., Aug. 3, '59, p. 1).

The chart on page 8 shows the sharp climb in aluminum production that took place during the first seven months of 1959. Output for that period was better than 25% above the year-ago level—and both the first and second quarters of the year set new records for total production of the light metal.

Production Aims at Record

Barring a strike, total 1959 aluminum production should near the 1.9-million-ton mark. That would establish a new yearly record, 20% above the total reached in 1958, and some 13% more than the previous high in 1956.

Sales of aluminum also have expanded very significantly this year. Commercial shipments in the first half of 1959 were better than 50% above the year-ago level. And total shipments this year probably will outpace 1958 by some 35%.

The sharp boosts in aluminum demand so far this year have caused producers to expand their capacity rapidly. Many previously closed pot-lines were re-activated and a large number of new facilities have been put into operation in the past four months. In the second quarter of the year alone, total domestic capacity was expanded by some 4% as the industry used some 90% of its available productive facilities.

Price Pressure Pushing

The expansion in aluminum usage this year has not led to any significant price boosts, as the chart indicates. But pressure under tags has been mounting steadily since the beginning of 1959, and discounts and freight rebates, which were present during the beginning of the year, reportedly have disappeared.

The domestic producers are very anxious to restore the rest of the 2¢-a-lb. price cut that was made in April of 1958. Part of the boost, 0.7¢, was recaptured last August when wage rates in the industry went up under terms of the existing labor contract.

But U. S. producers have been hesitant in attempting to restore the other 1.3¢ a lb. for fear that Aluminium, the big Canadian producer, would not go along with the hike.

It was Aluminium that forced the U. S. price down when it cut its world prices of aluminum up to 2¢ a lb. in 1958. The best guess at the present time is that the Canadian firm will go along with restoring about another 1¢ a lb. of that cut when new contracts are signed later this year.

More Uses—More Aluminum

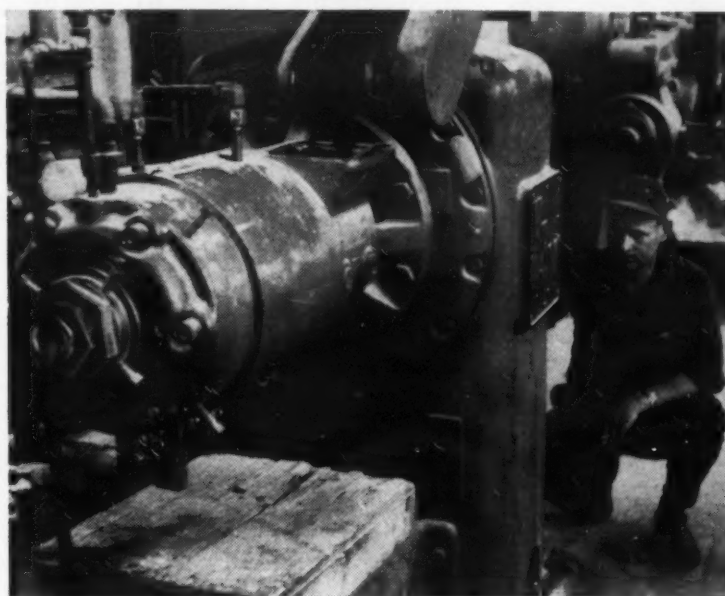
The aggressive promotion of new aluminum uses by the big domestic producers has been a significant factor in expanding aluminum use so rapidly. Increased applicability of the light metal in building and construction—which now accounts for almost 25% of the total aluminum market—has been pushed by producers in promotions such as Reynolds Metal's "House of Ease" program.

The transportation industry, which accounts for over 17% of

(Continued on p 8)



3. Strip-feeding rubber to extruders for shaping into industrial hose. Gulfcrown Grease lubricates the bearings of this machine—and, as seen here, is also supplied to external components of the machine.



4. Extruding rubber like endless macaroni. This extruder, in another section of the plant, has many precision gears in its speed reduction units which regulate feed and speed. The gears operate in a bath of Gulf Harmony oil.



7. The finished product . . . Swan Rubber's industrial hose, some 300,000 feet of which are produced here daily. Only 6 Gulf greases and 3 Gulf oils provide complete lubrication for more than 300 basic processing machines.



8. Gulf man on the job helps Swan Rubber cut downtime 30% with the right Gulf greases and oils. Right, E. A. Jeffrey, Gulf Sales Engineer, with C. B. Jacobs, Plant Engineer, Swan Rubber Company.

machines using Gulf greases and oils . . .

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chinery, there hasn't been a single plant-stopping machine breakdown due to a lubrication problem—strong evidence that Gulf makes things run better.

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GULF OIL CORPORATION

Dept. DM, Gulf Building
Pittsburgh 30, Pa.



Aluminum Production, Shipments Surge to New Record High in '59

(Continued from p 7)

total demand for the white metal, is another area being aggressively developed by Reynolds. The giant producer recently announced a program to supply plate and extrusions for the production of 1,205 aluminum railroad cars for the Southern Pacific Railway System.

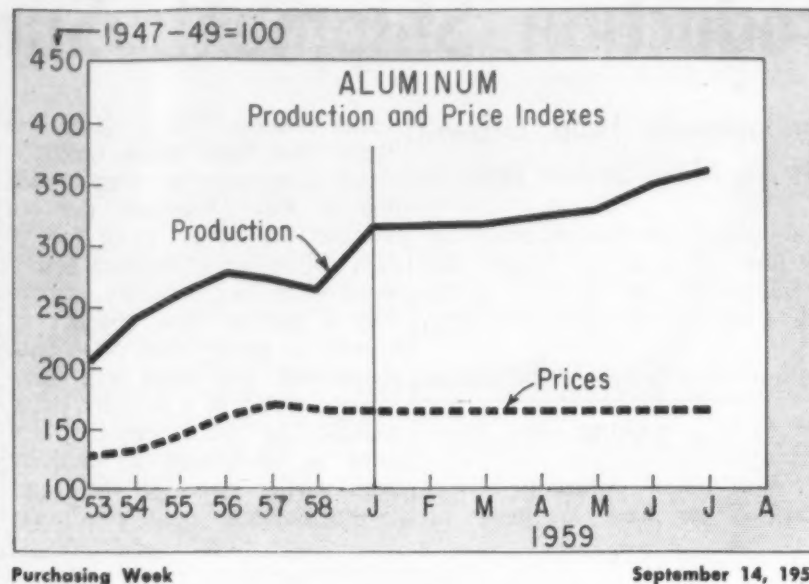
Aluminum in combination with certain chemicals also is finding many new markets. As an additive, aluminum now is used in many space-age fuels, and the Aluminum Co. of America has just announced a plan to harness H-bomb power for industry using an aluminum oxide core in a ceramic chamber which controls a thermonuclear reaction.

New developments also have

come in the handling and stocking of the white metal. Aluminium Ltd. reports highly favorable reaction to its interlocking ingot system introduced at the beginning of the year. The company has announced that all of its basic remelting ingot will now be produced in the new "Tri-Lok" shape.

Claimed by Aluminium to be "faster, easier, and safer to handle," the new-type ingots lock together three ways when stacked—vertically, laterally, and lengthwise. "They can save a good deal of money in warehouse costs," a company spokesman told PURCHASING WEEK.

Continued expansion and products such as these will help the growth trend in aluminum for a



Purchasing Week

September 14, 1959

number of years to come. Major producers are generally expanding their investments in research and development in order to find new and varied uses for the aluminum which will come from

rapidly expanding new productive capacity.

Alcoa alone reports that 1959 research and development spending will reach \$18 million—over 12% above last year's total. And

private investment of this type is supplemented by extensive governmental research of a more basic nature.

In addition to expanding commercial needs, total aluminum demand is growing through increased usage for defense purposes. A shift toward light-weight, airborne, low-maintenance equipment is bringing aluminum into a host of new military uses, it is reported.

A recent survey by Reynolds Metals reported that: "Aluminum now is being used for every kind of military equipment imaginable from tent pegs to missiles, to combat vehicles protected by aluminum armor plate."

During the current year, several hundred million pounds of the light metal will be used in equipment earmarked for national defense. And industry spokesmen expect this demand to "increase substantially" for at least the next three years.



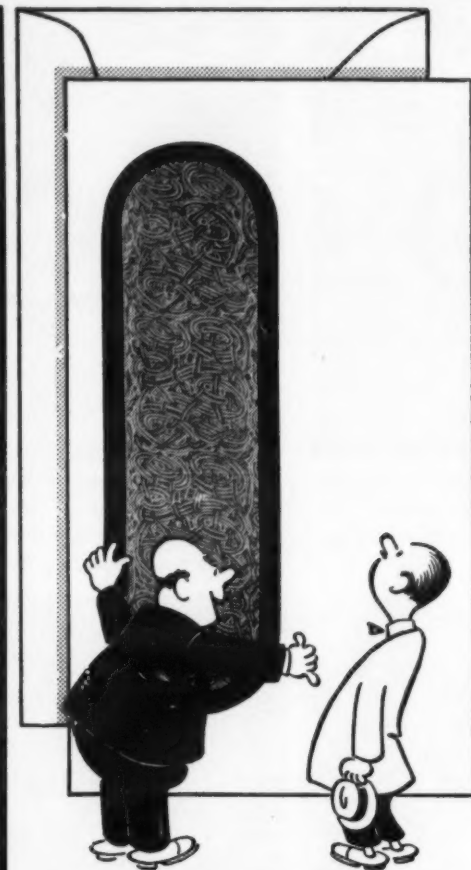
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CT-54



Report Purchasing's Contribution Now

This is the time of year department heads in many large and small companies start drafting budgets. Facts and figures are studied, appraised, and reappraised. Every possible source of information is tapped. And, let's face it, there is no one more vital source for such information than the purchasing department.

As every purchasing man knows, the decisions that are made by individual buyers, to say nothing of purchasing agents and directors, have a direct bearing on companies' financial plans as well as statements. This being true, it's just good business for a firm's top management to include in its annual report to stockholders a report on the activities of the purchasing department.

This is done now in some companies. And, in some cases the initiative for collecting the necessary information is taken by top management; in other cases, purchasing men, aware of the need for regular recognition, prepare interesting reports and submit them to top management.

It matters little who instigates a purchasing department report within an annual report. The benefits are the same in either case but—and this is the important but—remember your top management men may not be fully aware of the interesting facts you can present.

To purchasing men, the every day procedures of their departments may not sound as glamorous as some other departments' activities. It's a pretty good bet though that those very "other departments" think the same way about the purchasing department.

This is understandable and, when you look at it in this light, you'll find there are many interesting things to report on. Dennison Mfg. Co., for instance, introduced a section of a recent annual report by stating: "... This year's subject is the vital and dynamic work of the purchasing division." It took five full pages to report on purchasing's activities. Materials were discussed and how Dennison procures those materials was detailed.

The purchasing department's responsibilities and accomplishments were spelled out in detail and the report concluded with this tribute to purchasing:

"... By prudent purchasing, careful quality control, and close supplier cooperation, Dennison succeeded in converting ... materials, services, and supplies into a profitable business ..."

There are many other avenues which can be explored for an annual report. A statistical account of purchases and estimated savings can be interesting; case histories of outstanding activities by buyers can top the "best seller" list. The approach any one department takes depends completely upon how the individual department is set up and how it operates.

The big thing, of course, is that a report be made and that the report be made interesting. While it may be true that this is something that is easier said than done, it is something that needs doing and the purchasing department, being a department of action, should take the initiative.

Of course making a report interesting involves writing in such a way as to capture and keep interest. It is for this very reason that PURCHASING WEEK presents in this issue: "10 Fast Hints on Better Report Writing."

Now is the time to start putting your facts together in an interesting report.

Your Follow-Up File

Should P.A.'s Visit Vendors?

Owosso, Mich.

In your Aug. 31 issue, H. W. Thetford, purchasing agent for the Educators Mfg. Co., asked the question: "Should the purchasing agent visit all potential volume suppliers before actually placing the first order?" ("Your Follow-Up File," page 10).

I feel this is a very important function of the purchasing agent's job—visiting a potential volume supplier to see the type of equipment that particular company has, also the type of individuals he is going to have to work with as far as follow-up, placing orders, etc.

We have always felt in our company that it is best to know the people you are working with, not only from the top, but down also to the follow-up clerks, plus the people who are doing the leg work on the orders.

We have found over the years that by being able to know the individual you are talking to on the phone, you can do a much more efficient job for yourself and your company. It is much easier for the individual supplier's people to work with us too.

Everybody should know by now that personalities certainly do enter into business in some way or other. If you meet the individuals that you are doing business with and learn their particular personalities, you will always find that it is much easier to work with them, even though it is being done over the telephone.

K. L. Skinner
Purchasing Agent
Toledo Commutator Co.

Decatur, Ill.

Yes, I think a purchasing agent should call on his major suppliers.

It's an ideal way to round out the purchasing agent-supplier relationship, to give the purchasing agent a better

understanding of the supplier's capabilities. At the same time, it gives more people in the supplier's organization an opportunity to get to know their customer first hand and better understand his requirements.

The purchasing agent's company and the supplier are in business together.

Anything that brings them closer together and improves their communication is good for the same reason it's good for one department to know what another is doing within the same company.

H. H. Hise
Purchasing Agent
A. E. Staley Mfg. Co.

Chicago, Ill.

There are always a number of factors to be taken into consideration in selecting a supplier.

A visit provides first-hand knowledge of a company and its ability to produce. Not only does it acquaint the purchasing agent with a firm's production facilities, but it gives him the opportunity to know the organizational setup and the type of men he will be dealing with.

I do think it is important that such calls be made.

W. E. Hunter
Vice President
Purchasing Division
Curtiss Candy Co.

Comments on Price Changes

New Orleans, La.

Your publication has been of much assistance in providing required information in carrying out daily duties in connection with procurement of materials and equipment.

It is considered the most valuable publication of its kind that is received in this office. Your staff does an excellent job of "digging up" the information and then presenting it in a very concise and adequate manner.

Your publication contains many features about which comments could be made but, in particular, I am writing about your section on "Price Changes." I am attaching a notice of a price change on aluminum triplex service drop cable, which is a very important item for electric utility purchasing agents.

It is believed this price change section will provide a very good record of price changes over a long period of time, particularly in view of the fact that we are now probably facing a period when numerous price changes will occur.

U. E. Mathis, Jr.
Purchasing Agent
Louisiana Power & Light Co.

To Our Readers

This is your column. Write on any subject you think will interest purchasing executives. While your letters should be signed, if you prefer we'll publish them anonymously.

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Vol. 2, No. 37

September 14, 1959

PURCHASING WEEK is published weekly by the McGraw-Hill Publishing Co., Inc., James H. McGraw (1860-1948), Founder. Publication Office, 99-129 North Broadway, Albany 1, N. Y. See panel below for directions regarding subscriptions or change of address.

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How do you assure or facilitate prompt submission of solicited quotations or bids by vendors?



J. W. Conklin, purchasing agent, Toledo Kitchen Machine Div., Toledo Scale Co., Rochester, N. Y.

"At our division, prompt submission of inquiries is obtained basically by time limits. Our quotation form must be in our hands in six days from date of inquiry. Additional incentive is obtained by a box on the form asking the vendor to suggest any economies in manufacture applicable to the bid for the proposed part. This gives initiative to the bidder to be first in with deviations from specifications, thus effecting cost saving for our purchase and manufacturing convenience to the vendor whenever applicable."



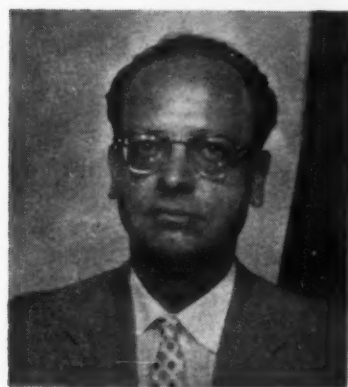
A. P. T. Edwards, director of purchasing and traffic Quebec Iron & Titanium Corp., Sorel, Quebec:

"All requests for bids, solicited quotations, etc., are forward to vendors in duplicate on our preprinted inquiry form with recall date of seven days for a reply on M. R. O. supplies. The length of time granted for capital purchases is determined by their magnitude of detail. The vendor completes our form by inserting prices, delivery, terms of payment, weight and returns one copy to us within the stipulated recall date, retaining one copy for his file. We have obtained almost 100% success with this method. Occasionally, tardy replies are followed up with a telephone call."



R. C. Sivert, purchasing agent, Calvert Distilling Co., Baltimore:

"Primarily by following three basic rules: **One**, give vendors a reasonable length of time to prepare an answer; **two**, state your time limit on your invoice; and, **three**, stick by that time limit and they soon learn that you mean business. Of course, these rules do not apply when you are dealing with a sole source for parts. If it's an important thing, you don't fool around with written quotations, you either wire or phone and get your answer then."



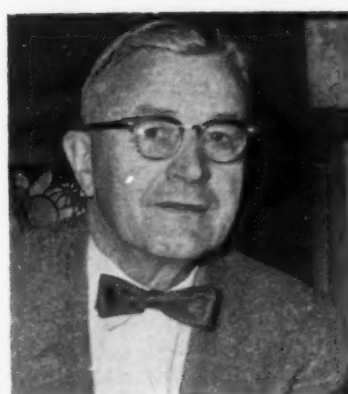
L. H. Ouren, purchasing agent, Corn States Laboratories, Inc., Omaha:

"Most of our quotations are obtained through local sources of supply, where a few phone calls will give all the information desired. When out-of-state quotations are requested we normally write very clear, extensive specifications, and indicate a date by which the reply must be received. Usually these go out by air mail if distance warrants this method. Occasionally, telegrams are sent with a quotation requested by return wire. With these methods, we have experienced a minimum of difficulty in obtaining quotations by the required time."



L. M. Danner, purchasing agent, Raymond Mfg. Division, Associated Spring Corp., Corry, Pa.:

"Inquiries are sent only to those companies whom we know have the ability to perform the work in question and have a good reputation for service. Whenever possible we patronize sources close to our plant to eliminate delays in contact. Requests for quotations must show the most complete specifications possible and a time limit for answering is helpful. We use the personal touch by addressing or contacting the individual most acquainted with our account."



R. E. Sargent, purchasing agent, C. H. Dexter & Sons, Inc., Windsor Locks, Conn.:

"We keep a running record of requests for quotations. These are set up on a follow-up basis and if vendors don't respond within the time we think they should, we check with them by phone. Prompt submission of quotations isn't too much of a problem for us since most of the material we get quotations on are machinery items and we don't change a great deal. On recurring production requirements, we know prices on running business and just buy on the open market."



A. S. Arnold, purchasing agent, Worcester Telegram and The Evening Gazette, Worcester, Mass.:

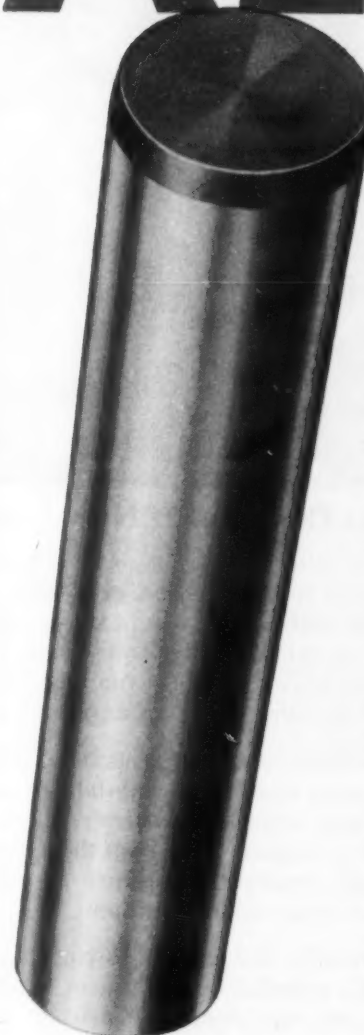
"There is only one way to control bids and that is by placing a definite, inflexible time limit on acceptance. This time limit should be clearly stated and when it is approached, rigidly maintained. After missing consideration, the seller will make it a point to meet time requirements. Meeting these time requirements is an important indication of the vendor's character and reliability. It indicates what we may expect in future relations, especially in meeting delivery requirements. In our business, time is essential."



F. E. Cameron, purchasing agent, Park Drop Forge Co., Cleveland:

"I wish I had a solution. Most of our quotations come from local representatives of manufacturers who in turn are frequently dependent on manufacturers of component parts of an assembly. These manufacturers of components are often tardy in giving the manufacturer quotations on the component parts. It, therefore, is impossible for the manufacturer to quote promptly. Just one fellow in the chain can hold up quotations and we have to be patient about these delays."

ALLEN

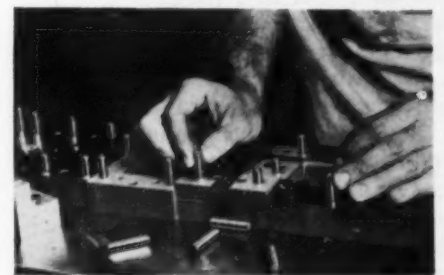


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Hartford 1, Connecticut



Middle Management Controls Profit and Loss

(Jack Walter is material manager of General Electric Television Department in Syracuse, N. Y. He has had wide and varied experience in management aspects of procurement, materials control, and production planning and control both in government work and in industry. Mr. Walter also has been a leader and speaker at production and material management activities of the American Management Assn.—Ed.)

By J. D. WALTER

Business studies undertaken by outside management consultants have revealed that most of the decisions contributing to profit and loss are made at what might be labeled the middle management level.

These are the decisions made functionally in the day-to-day conduct of the business as opposed to the policy making and general master planning that are the responsibility of top management. Through the natural involvement found at this level it

Jack Walter defines material management . . .

. . . It entails the bringing together of all functions of an operation that has to do with the requisitioning, purchasing, transportation and receiving of materials, and production planning and control into one integrated group and under one manager. This manager then has a seat on the planning board for the company, where he takes an active part in the planning work.

follows that this echelon is more completely integrated than lower levels, has a better understanding of the cause-and-effect relationships of interfunctional problems and activities, and has a highly developed communication system.

If we recognize that this is the critical area of management, it is only logical that this group be composed of all functions that have direct responsibility for the sale and production of a product—and those functions that provide multi-functional services. Marketing, engineering, and manufacturing have direct product responsibility. Finance, purchasing, and production planning are service functions.

Finance always has had a place in middle management, whereas, until recently, purchasing and production planning often have been found at lower levels. With the materials management concept of organization, it now is possible to bring these two important elements of a business into this middle management group without increasing its size to unwieldy proportions.

Materials, as a part of middle management, completes the functional circle and insures that all aspects of a business are considered when production planning and scheduling changes are contemplated. The advantages are twofold: First, when changes are necessary, the shorter line of communication assures a clearer understanding of the need and provides greater motivation to accomplish the change in an optimum manner.

Secondly, management is given a potent tool in the war against the avoidable or unneces-

sary change. Therein lies the biggest challenge to materials today. Properly accepted, the integrated materials team can contribute heavily to profit. Organizationally, the materials function is articulate and is so at the point and time of decision making. This assures that materials-oriented information is available and will be considered when changes are contemplated. More importantly, perhaps, it gives materials a better opportunity to fulfill its service obligations to all other functions.

Materials can supply to marketing and general management a broad cross section of general business conditions. Economic soft spots or rising trends may be detected and reported sufficiently

early to permit an orderly and well-planned adjustment to production schedules. New materials and processes can be discussed and evaluated at the time of product design, thus avoiding their incorporation by change.

Product design execution or concept can be studied by people familiar with procurement or process limitations—again, at the time of product conception. This may prevent the costly delays and changes that occur when limitations are not discovered until production has started.

The materials function is not offered here as a panacea to cure or avoid changes. Changes themselves are both the result and

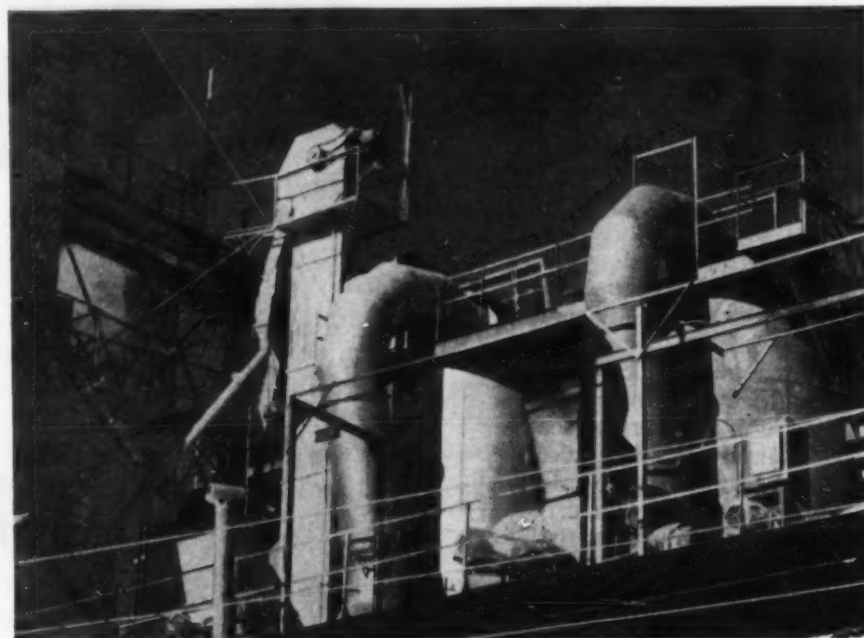
the cause of progress. Some may feel that several of these suggestions on organization represent an invasion of other functional areas and may result in the creation of sectional jealousies.

But business today is becoming more complex. Its management is no longer a one-man job, nor can each function's decision making be limited only to considerations within its own area.

This article has been adapted, by permission, from a chapter in a book on production planning and control to be published by the American Management Association early in 1960.

SILICONE NEWS from Dow Corning

Found: A Paint that Lasts



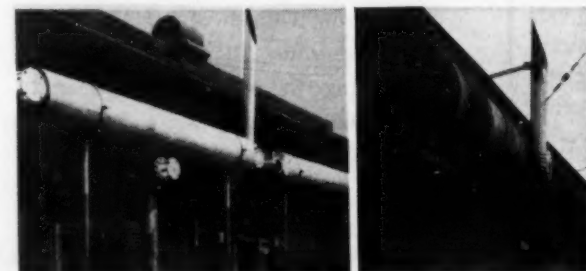
Cut Costs with New Long-Lived Silicone Finishes

You paint your plant to protect against rust and rot, but how can you protect the paint? Sun, rain, heat, sleet, smoke, and other elements of the industrial climate take a heavy toll. Shortly after the paint is completely dry, it starts to deteriorate. Soon, it must be re-applied. Thus, the cost of keeping away rust can run high: not due to the price of the coating material as much as to the repainting time involved.

Now, however, new paints based on silicone resins make it possible for you to make some really substantial cuts in paint maintenance costs. Proven to have superior durability, these silicone finishes last a good 25% to 100% longer. They keep their gloss and color and film integrity despite tough exposure to weather . . . despite high temperatures that burn or crack conventional finishes.

Naturally, this greater staying power means fewer repainting jobs. And that's especially important in hard-to-get-at areas of the plant, or on hot-running equipment that must be shut down for painting.

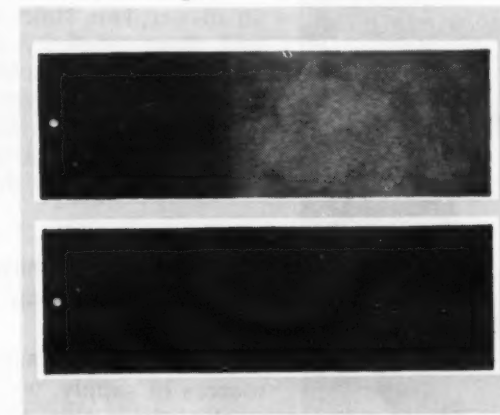
For instance, the Austin White Lime Company, of Austin, Texas, had difficulty keeping paint on the kilns and stacks shown above. Then they tried a paint based on Dow Corning Silicones, and report it ". . . by far the most satisfactory paint we have ever used." You can see the gleaming results.



Many other firms have come to the same conclusion. At left are two diesel mufflers at the Philadelphia Gas Works. Both were painted two years before these pictures were taken; one with an organic coating, the

other with a silicone finish. The burned, cracked and discolored paint is the organic; the "like-new" coating is the silicone.

What if there's no heat problem, just weathering? New silicone-based coatings outlast conventional paints even where high temperatures are no problem. Look at the test panels in the photo. These panels have been exposed for one year in an industrial location where corrosive atmospheres frequently prevail. The conventional organic paint has faded, lost its gloss and chalked badly, while the silicone finish (bottom) is still in fine shape.



Colors Unlimited . . . Silicone finishes run the complete spectrum. If you want a hot-spot finish that will resist 1,000 F, certain pigments such as aluminum must be used.

But, when temperatures are not high enough to damage the pigment, you can get virtually any color you wish. This is important, for it means that, for the first time, you can carry color-coding systems over onto hot equipment without worrying about early paint failures.

Product finishes based on Dow Corning Silicones further prove the resistance to chalking, checking, fading and oxidation of these resins. For example: Sherer-Gillett, Marshall, Mich., a major producer of refrigerator display cases for supermarkets, has found a silicone-based enamel superior in durability . . . retaining high gloss after long wear . . . capable of absorbing more abuse.

Why not investigate silicone paints for your plant? Send today for the descriptive brochure, "Why Silicone-Based Paints Mean Less Maintenance." Write Dept. 3621.

Your nearest Dow Corning office is your number one source for latest information and technical service on silicones.

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- ☐ Floor tiles, wall blocks
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- ☐ Rug underlay
- ☐ Plastic foams

Others

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- ☐ Sticky compounds
- ☐ Hot compounds
- ☐ Frozen foods

Others

MISCELLANEOUS
USES . . .

- ☐ Drum lining
- ☐ Carton lining
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- ☐ Camelback release

Others

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Company

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SILICONE COATED—ONE SIDE OR BOTH SIDES

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For labels, tapes, decals, etc., STICK-NOT provides:

- ... excellent initial and aged release
- ... no transfer of adhesives or silicones
- ... clean die cutting



RELEASE FROM RUG UNDERLAY

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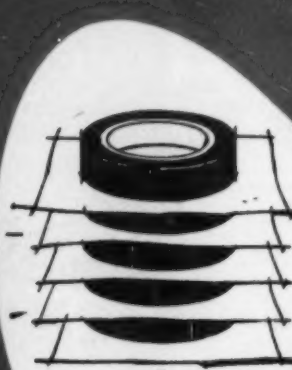
- ... excellent release and high strength



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For use as carrier and interleaf with asphalt, unvulcanized rubber, hot melts, etc., STICK-NOT provides:

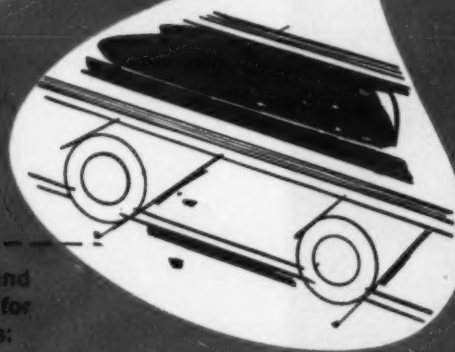
- ... physical strength
- ... high heat resistance
- ... excellent release



RELEASE FROM RUBBER SHEETING

For use as casting paper for calendared and unvulcanized rubber, and as interleaf for rubber blankets, etc., STICK-NOT provides:

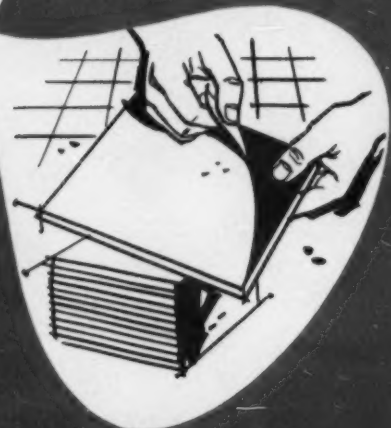
- ... high tensile and tear strength
- ... uniform smooth surface
- ... excellent release



RELEASE FROM PRESSURE SENSITIVE COATED FILMS & LAMINATES

For floor tiles, wall coverings, shelf lining, etc. STICK-NOT provides:

- ... excellent initial and aged release
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If you have other uses or requirements for release paper, we believe you will find that STICK-NOT will meet your needs. This new release paper provides a highly desirable combination of characteristics that have never before been achieved.

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tured in a wide range of weights. Also special types to meet special requirements. An example of a special type is STICK-NOT 1301-S with tensile strength of over 150 lbs. and wet strength equal to 80% of dry strength. Send coupon or write for further information.



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NEW YORK 17 • CHICAGO 2



EXTENT OF STOCK at Dhahran, Saudi Arabia, storage yard of Aramco Overseas Co., is seen in view of pipe yard. Yard is part of storage area that covers over 100 acres.



VARIETY OF STOCK is seen in array of valves and fittings of all types in yards at Dhahran. Stock clerk is a Saudi Arab. Of 726-man A.O.C. force only 78 are Americans.

How the Granddaddy of Foreign Purchasing...

(Turn the Page)

The Hague—World-wide purchasing is old hat for Aramco Overseas Co. here in Holland. Established ten years ago, this company buys supplies in the Eastern Hemisphere for the Arabian American Oil Co. (Aramco) operations in Saudi Arabia.

Its string of seven offices in Europe, Africa, Asia, and Australia spent over \$40 million last year for equipment and supplies.

This Aramco subsidiary has a big responsibility. Not only must it meet industrial requirements for producing more than 1-million bbl. of crude oil and refining 175,000 bbl. a day of petroleum products, but also it must buy the necessities and comforts of life for the 17,000 people who do the work.

Isolated in the desert country of Saudi Arabia, production facilities and company communities are thousands of miles from the normal supplier. All the 150,000 different items needed by Aramco must be transported to the Persian Gulf. These include housing, food, clothing, medical, and recreational facilities as well as the industrial requirements.

Karel H. Beekhuis, president of A.O.C., is located at headquarters in The Hague. So was Jack Martin, vice president of purchasing and traffic when queried by PURCHASING WEEK. Just recently, Martin was named manager of materials supply and traffic at Aramco headquarters in Dhahran, Saudi Arabia. Martin's transfer represents a step in rotation of key officers by Aramco.

Aside from headquarters in The Hague, A.O.C. purchasing offices extend from Tokyo to Sydney, London to Rome. Middle East buying is handled from offices in Beirut and Cairo.

In commenting to PURCHASING WEEK on its operations Karel Beekhuis said: "Contrary to the concept some people have, there is no country we buy where prices consistently represent bargains. For good quality, we generally have to pay as much in one area as in another.

"Labor is cheaper in Europe and even cheaper in some Eastern countries, which is an advantage when fabrication is involved. But American mass production and techniques have overcome lower cost advantages in other areas."

These top officers typify the international personnel makeup of the organization. Beekhuis, although American by birth, had Dutch parents. Martin also is American. But of the total 726-man force

of A.O.C., only 78 are Americans. The other 648 are nationals of the country in which their divisional office is located. The office in Cairo is headed by a national, with Americans heading the offices in London, Rome, Sydney, Tokyo, and The Hague. As in all their operations, A.O.C. and its parent company Aramco try to use nationals whenever possible.

To meet requirements for 17,000 employees and 1-million plus bbl. a day oil production calls for many items. Recently Aramco pruned the number of items requisitioned from 204,000 to 150,000. But it still takes a sizable variety to keep company production facilities and communities operating even though many of the small items are being taken over by local Saudi Arab merchants as they become established.

Operating conditions in Saudi Arabia combine to create special purchasing problems. With local costs high, all possible fabrication and assembly of equip-

ment is done in the country of origin, instead of Arabia. Vendors throughout the world are asked to do much more than normal and to U. S. specifications which may be new to them.

The prime purchasing condition is: meet rigid delivery schedules. Because all procurement is for export and needed many miles across the sea on time, traffic plays an extremely important part. There are few regular sailings to the Persian Gulf. For this reason, scheduling and meeting the schedule is extremely critical. Also important is the systematic arrival of materials in Arabia. In many cases the material has to be delivered at the precise time and location to conform with operating schedules established in the field. Any unforeseen interruption involves heavy penalties in cost, lost time, and operating bottle-necks.

In a case involving shipment of a 200-ton reactor vessel (see pictures on page 16) in one piece from Holland, traffic spe-

cialists were able to find only two ships in the world which had booms capable of unloading such a weight. A locomotive carrier shouldered the job of transporting the vessel and unloading it into the water at the end of the 8,000-mile trip. A series of operating manuals, prepared in advance, helped its successful unloading. It was then beached and traveled overland on 10-ft. high tires.

Problems in transportation also come in small packages for A.O.C. Several years ago the residents in Dhahran suddenly bought more coffee in one month than in the previous three. Knowing that Americans as well as Arab employees like a morning cup of coffee, the Beirut purchasing office received an emergency order for coffee. Within a few days, 10,000 lb. of coffee were flown in to tide over the company commissaries until the next shipment by boat arrived. Another time 45,000 dozen eggs were flown in within two weeks time when a shipment from Australia was delayed.

Long lead time is an operating hazard when the supply line is long. For A.O.C. it normally ranges from six months to a year. For some specially fabricated items it may be as much as 18 months or more. Transporting these goods requires booking long ahead on cargo ships. And in some cases, Aramco's own planes will bring them in.

Because of the long lead time you would expect to find a large inventory of equipment and supplies in Arabia. This is true. At the end of 1958, \$39-million worth of equipment was spread over 100 acres of desert storage. And another \$6-million worth was in transit to the three company store-yards in Dhahran.

"Our main problem," Jack Martin told PURCHASING WEEK, "is to find a supplier who has what we want. Everything we buy must be according to specifications which guarantee a high safety standard. And we also shoot for a high degree of standardization."

Most products (see chart) come from the United Kingdom, Netherlands, West Germany, France, Italy, Australia, Lebanon, and Belgium. During the past year or two Japan has become a more important supply point, and the Scandinavian countries have come into the picture.

As might be expected in buying for a country where sand, high temperatures (120 F. in the shade) and lack of normal facilities are the rule, special problems

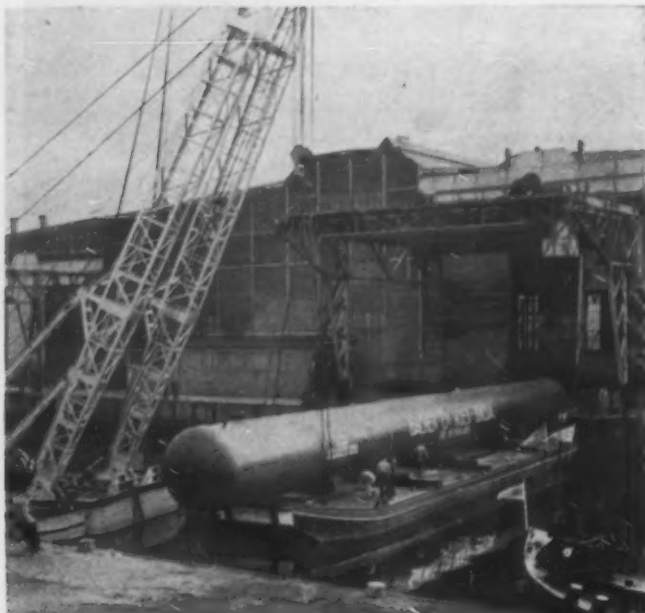
(Continued on page 16)

Where and What Aramco Overseas Co. Buys

Country	Material
UNITED KINGDOM	chemicals, tubular goods, marine equipment, cement, transformers, well head equipment, crawler tractors, cheese, safety toe shoes, shortening
GERMANY	tubular goods, prefabricated steel buildings, refining vessels, Diesel engines, trailers, cement, drilling equipment, road building equipment
HOLLAND	tires, refinery columns, trailers, communication equipment, marine equipment, milk products, coffee, vegetables, cheese, tenderloins, vegetable oil
FRANCE	steel tanks, tubular goods, motion picture films, boilers, drilling equipment
ITALY	tubular goods, heat exchangers, turbines, paste products, crackers, olive oil
AUSTRALIA	meat and other food products
LEBANON	fresh fruits, vegetables, eggs
BELGIUM	automotive vehicles, cement, electric motors, pumps
DENMARK	bacon, frozen milk, butter, ice cream powder, ham
SWITZERLAND	turbines
JORDAN	tubular goods, some food stuffs
SWEDEN	building materials

... Buys Chemicals, Steel, Turbines, and Food on Seven Continents

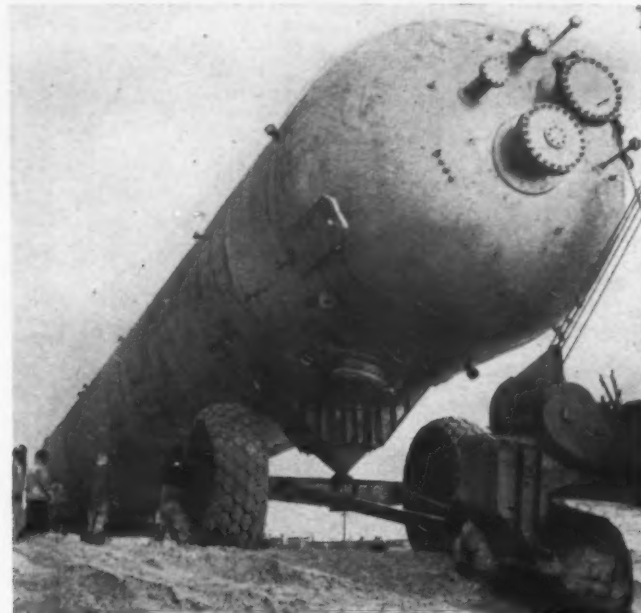
(continued from page 15)



STEP ONE: FIND BOOMS TO HANDLE. 200-ton tank heading from Europe to Saudi Arabia called for special booms.



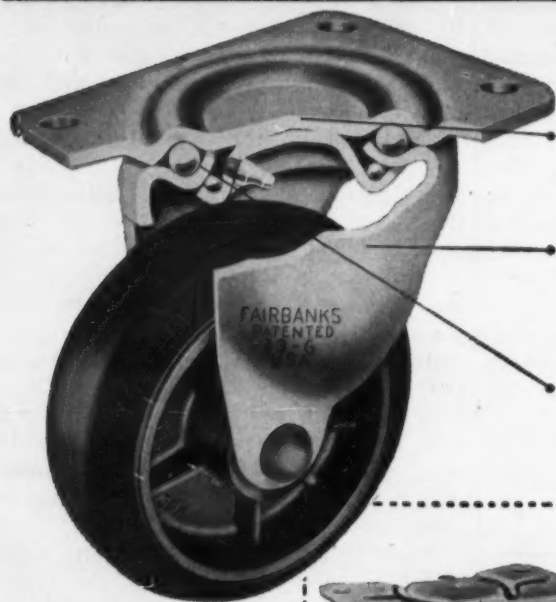
STEP TWO: TOW IT THROUGH CANALS. 125-ft. storage vessel is towed through Low Country canals to Antwerp.



STEP THREE: DRAG IT OVER THE SANDS. At end of 8,000-mile trip tank crawls over desert on 10-ft. tire rig.

ACHIEVEMENT IN CASTER DESIGN FAIRBANKS

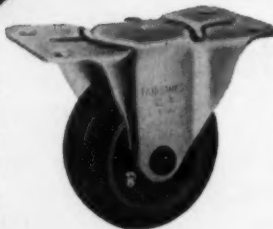
"LOCKWELD" Swivel Casters — Without King-Pin!



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- Larger raceways and ball bearings — perfectly aligned by the rigid welded structure — give faster, easier swiveling action.

Fairbanks Series "23" double ball race swivel casters, for medium duty, sizes 3" to 8".

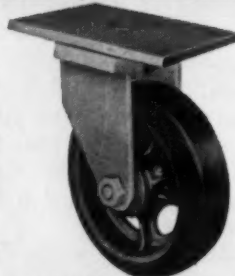


Fairbanks Series "33" rigid casters, match Series "23" casters in height, sizes 3" to 8".

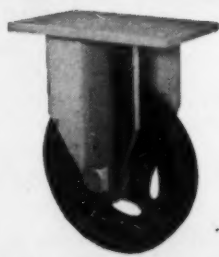


Fairbanks Series "21" single ball race swivel casters, for regular duty, sizes 2" to 6". Matching rigid Series "31" casters available.

HEAVY DUTY STEEL CASTERS



Fairbanks Series "27" double race swivel casters, for heavy duty, sizes 6", 8" and 10".



Fairbanks Series "37" rigid casters match the Series "27" casters in height, sizes 6", 8" and 10".



Fairbanks Series "500" Vulcanized Rubber Tired Wheels, roller bearing, sizes 3" to 18". Standard of the industry.

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(Continued from page 15)
are frequent. In remote areas where there are no roads, bridges, or competing traffic to limit vehicle size, large trailers and trucks are common. Trailers holding up to 10,000 gal. of water or fuel have special low-pressure tires to go through sand. And special cooling systems take care of the desert heat (7,200-gal. trailers are the largest allowed in most U. S. states).

To obtain this kind of special equipment, A.O.C. engineers and buyers work closely with suppliers all over the world. Of the total personnel in A.O.C., about 300 are involved in engineering, another 300 directly with purchasing and traffic, and the remainder in auxiliary services. Of the purchasing group, half is in The Hague with the rest scattered in world offices. London has an office of 80.

In some respects, world-wide buying does not create the problems an American might expect. There are few difficulties with languages because most businessmen of North Europe have been operating on an international basis for years. English is taught in most European schools. But Americans quickly learn that the Oxford English used by Europeans differs from their own local accent.

Specifications in different weight standards are not a special problem either. The entire Aramco organization uses U. S. nomenclature, with the actual user deciding whether European descriptions would fit U. S. Standards. For this conversion there is an Aramco Materials System Catalogue that defines which materials and designations are approved for purchase. Thus the actual purchase

**THIS
PROTECTIVE
COATINGS
MANUAL
belongs
in your
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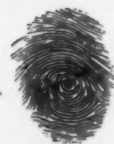
New 36-page catalog in full color shows you how to Stop Rust — and provide lasting beauty in your choice of colorful Rust-Oleum finish coatings on tanks, girders, metal sash, pipes, boilers, stacks, metal fences, fire escapes, and many other applications. Includes over one-hundred actual color chips — plus important application photos, surface preparation data, and technical information. Request your FREE copy of Rust-Oleum Catalog No. 257 — today!

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order terminology may be whatever has been approved by the ultimate user and is related back to the base American specification.

"There are no special techniques," says Jack Martin, "when buying in Europe, the Middle East, or the Far East. Bargaining, which traditionally used to take place before a deal could be made, has been replaced with normal practices. Business is awarded on the basis of best bid, backed up by required delivery date, and quality."

Attracting Americans for foreign A.O.C. service is similar to that which attracts regular Aramco employees. They receive more money than they would at home, otherwise they are apt to stay home. If living costs are higher abroad than in the States, an extra living allowance is permitted.

Purchasing in Saudi Arabia itself is easing as local economy expands at a rate parallel to Aramco's. Local distributors now can furnish clothing and personal comforts. Cars, trucks, and buses are now being rented from Saudi Arab groups. Some items like cement blocks, industrial gases, and local trucking now can be obtained from non-company groups.

Payments to Saudi Arab suppliers in 1958 increased more than two and one-half times over 1957. Almost \$500,000 per month was paid to local suppliers in 1958. For the first time, in 1958, the company bought fresh eggs and vegetables from Saudi Arabian farmers in large quantities.

A.O.C. has one advantage

which many P.A.'s might enjoy. Reciprocity is not a problem, even though much of the purchasing is done in the countries where the final products of the company are consumed.

When crude oil or finished products leave the shores of Saudi Arabia, they lose any direct Aramco identity. Distribution is entirely through the facilities of the four owning companies: Jersey Standard, Texaco, Standard of California, and Socony Mobil—or one of their foreign subsidiaries. About half the production is marketed in Western Europe and more than a quarter of Aramco's production goes to Asia and Australia.



M.R.O. stocks of A.O.C. at Dhahran are part of \$40-million inventory.



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... and low cost production is possible at ETASCO because of our very complete facilities for blanking, piercing, drawing, welding, etc. YOUR BLUEPRINTS sent to ETASCO for quotes will not obligate you, and may very well mean more profit to you.

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successful ironworks is located

*Quality
begins with
Quality*

...and Bridgeport
Fine Grain Brass forms
the basis for gracious
Oneida Hollow Ware

The outstanding reputation enjoyed by Oneida Silversmiths, Oneida, N. Y., is attributable to one cause... quality. Since 1848, this company has designed and manufactured the very finest in silver flatware and hollow ware.

As the basis for many of their hollowware items, Oneida chooses Bridgeport Fine Grain Brass and Copper strip. These metals are subjected to severe deep drawing and stamping. Rigid inspection assures that each piece of Community fully meets the company's unqualified demands for "perfectionism." The grain of the copper and brass strip must be closely controlled to take the many polishing and buffing operations that follow forming. At the same time, the strip must be sufficiently ductile to take deep drawing and stamping without cracking or waving. Strip surface must be absolutely free of any imperfections.

Fine grain brass and copper are only two of the many closely quality-controlled alloys produced by Bridgeport for the benefit of hundreds and hundreds of products. Strip, for example, can be made to the most exacting tolerances and finishes from end to end on Sendzimir mills. Your production operations benefit by running with fewer interruptions when you use Bridgeport's long-length coils.

Behind Bridgeport's outstanding products and manufacturing facilities is Bridgeport Technical Service, ready to help with your product design and production. Technical Service—plus top quality strip, tube, rod and wire are a combination that can make your product better, your production methods more efficient. Call your nearest Bridgeport Sales Office or write to Department 4008 for your copy of our "Fine Grain" Brochure.

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Specialists in Metals from Aluminum to Zirconium



Meetings You May Want to Attend

First Listing

Society of Automotive Engineers—Farm, Construction, and Industrial Machinery Meeting and Display, Milwaukee Auditorium, Milwaukee, Sept. 14-17.

Pacific Northwest Public Buyers Association—Fall Convention, Columbia Hotel, Wenatchee, Wash., Sept. 18.

Society of Automotive Engineers—National Aeronautic Meeting and Display, Ambassador Hotel, Los Angeles, Oct. 5-10.

1960

Purchasing Agents' Association of Florida—6th Annual Buyer-Seller Meeting, Mayflower Hotel, Jacksonville, Fla., Jan. 14-16.

Previously Listed

SEPTEMBER

Sixth International Packaging Exhibition—Olympia, London, Sept. 8-18.

Public Works Congress and Equipment Show—Auditorium Arena, Seattle, Sept. 20-23.

Instrument Society of America—14th Annual Instrument-Automation Conference and Exhibit, International Amphitheater, Chicago, Sept. 21-25.

American Oil Chemists Society—Meeting and Exhibit, Statler-Hilton Hotel, Los Angeles, Sept. 23-30.

National Association of Purchasing Agents, 2nd District—13th Annual Southwest Purchasing Conference, Mayo Hotel, Tulsa, Sept. 24-25.

British Purchasing Offices Association—1959 Annual Conference and Mini-bition, Folkestone, Kent, Sept. 24-26.

National Association of Purchasing Agents, 1st District—13th Pacific Inter-mountain Purchasing Conference, Claremont Hotel, Berkeley, Calif., Sept. 25-26.

National Association of Oil Equipment Jobbers—Annual Convention and Trade Show, Hotel Leamington, Minneapolis, Sept. 27-29.

Business and Corporate Gift Show—New York Trade Show Building, New York, Sept. 28-30.

National Hardware Show—Coliseum, New York, Sept. 28-Oct. 2.

OCTOBER

National Association of Purchasing Agents, 7th District—16th Annual Conference, Read House, Chattanooga, Tenn., Oct. 11-13.

National Institute of Governmental Purchasing—14th Annual Conference and Products Exhibit, Hotel Sheraton Cleveland, Cleveland, Oct. 11-14.

National Association of Purchasing Agents, 9th District—Purchasing Conference, Sheraton-Kimball Hotel, Springfield, Mass., Oct. 15.

American Production and Inventory Control Society—3rd Annual Convention and Technical Conference, Hotel New Yorker, New York, Oct. 16-17.

American Standards Association—10th National Conference on Standards,

List Your Meetings

Associations, societies, and committees interested in calling the attention of readers of **Purchasing Week** to their meetings are welcome to use this column. The gathering should be one of interest to purchasing agents. There is no charge.

Send announcements to: Meetings Calendar, Purchasing Week, 330 West 42nd Street, New York 36, N. Y.

Sheraton-Cadillac Hotel, Detroit, Oct. 20-22.

National Association of Purchasing Agents, 6th District—Conference, Dayton, Oct. 29-31.

NOVEMBER

Air Conditioning and Refrigeration Institute—Exposition, Convention Hall, Atlantic City, N. J., Nov. 2-5.

American Society for Metals—National Metal Exposition and Congress, International Amphitheatre, Chicago, Nov. 2-6.

National Electrical Contractors Association—Annual Convention and 5th

National Electrical Exposition, Fontainebleau, Eden Rock, Deauville, and Carillon Hotels, Miami Beach, Fla., Nov. 9-12.

Milwaukee Association of Purchasing Agents—1959 Products Show, Milwaukee Auditorium, Milwaukee, Nov. 10-12.

National Retail Lumber Dealers Association—6th Annual Building Products Exposition, Cleveland, Nov. 14-17.

International Automation Exposition and Congress—Trade Show Building, New York, Nov. 16-20.

Electrical League of Western Pennsylvania—Industrial Electric Exposition, Penn-Sheraton Hotel, Pittsburgh, Nov. 17-19.

In the World of Sales

Earl B. Hathway has been advanced from vice president in charge of trade sales to vice president in charge of all sales by **Firestone Tire & Rubber Co.**, Akron. **Charles L. Largent**, eastern division manager, takes over Hathway's former duties with new title of general trade sales manager.

Clark C. Cone has been appointed general manager and director of sales for **Bustin Steel Products, Inc.**, Dover, N. J. He had been sales manager of Schuy-

ler Mfg. Co., Arlington, N. J.

J. A. Rudy has taken the post of industrial sales manager with **Potter & Brumfield**, a division of **American Machine & Foundry Co.**, Princeton, Ind. He was formerly a staff engineer, Automatic Electric Co., Northlake, Ill.

David B. Eden, manager of replacement sales, has been assigned the new post of director of distributor sales, **SKF Industries, Inc.**, Philadelphia.



Paint
is a
prime
example

There's a USS steel container to meet almost every shipping need

Whatever you ship—paint, chemicals, petroleum, food—wherever it goes, its quality is secure in a USS steel container. USS steel drums and pails are precision-fabricated of carbon or stainless steel and fitted with any standard closure. Carbon steel containers are rust-inhibited, inside and out, and specified linings can be applied to protect your product's purity. Complete facilities are available to decorate containers with

any design in bright, durable colors to your specifications. Call the USS man at one of the plants or offices listed below. He can help you select the right steel shipping containers for your product. Delivered where and when you need them.

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United States Steel Products
Division of
United States Steel



C. E. Rather's Fishing Skill Lands Him in Ad Modeling for His Firm

"Gone Fishin," is a familiar sign at the home of C. E. Rather, director of purchasing, Southwest Airmotive Co., Dallas, Texas, any weekend that work or weather permits.

And it's no fishy story when Rather claims that about once a month when he and S. A. C.'s chief engineer, George H. Kelly, journey to Freeport, Texas, for some deep-sea fishing in the Gulf of Mexico. Frequently their catch is so large they have to rent a trailer to bring it home.

On a recent expedition they caught 1,000 lb. of tuna. It's times like this they enjoy sharing their success with neighbors, and "a thousand pounds of tuna can be shared by many friends," says Rather with a triumphant twinkle in his eye.

Likes Gulf Fishing

With special gear for deep-sea fishing which includes a \$100 electric rod and reel, Rather fishes from a boat which goes 50-80 miles out into the Gulf where fishing is at depths of 135-180 ft. He and Kelly dreamed up and built out of bicycle parts a unique rig, which can be pedaled by hand to bring in a heavy catch. "With its 675-lb. test line you could hang a whale on it and still get him in," claims fisherman Rather.

Discussing sea-sickness and the faring of rough weather brought to mind the most outstanding experience Rather encountered on any fishing trip he ever took.

About 75 miles out in the Gulf on a sturdy craft "which can take plenty of hard blows" Rather, his fishing companion Kelly, and seven other men were about to discover how a fishing boat can survive winds over 55 mph. and waves up to 15 ft. high.

Pick Up Distress Signal

During the height of the storm their radio picked up a call for help from a yacht which had been damaged and was taking in water. The large \$100,000 range privately-owned craft had only the fishing boat and its men to count on for help.

Rather's group got close enough to throw a tow line to the yacht.

Three men in turn tied it around their waists and were pulled through the water to the fishing boat. A fourth, the skipper, insisted on staying with his ship, until eventually the owner ordered him to abandon it. As Rather and the others were dragging him in, the yacht went down. The fishing boat rode out the storm in about 14 hours of pitching and tossing.

"That's the roughest water I've experienced," reveals Rather. "That sea was so rough," he continues, "that every man aboard became violently ill, including our captain."

A 'Model' Fisherman

Rather is such a natural and enthusiastic fisherman that when his company needed a model for a recent ad featuring a fisherman, they grabbed him. He impersonated a bumbling and irate fisherman so graphically and humorously (see above) that the ad for which he posed has been reprinted editorially in a number of aviation and advertising magazines. This claim to national fame has made him the subject of much good-natured kidding from his friends.



Tackling tangled tackle takes . . . know-how, patience . . . here's one solution.



Announcing Worthington QD Sheaves with the

GOLDEN SCREWS

To demonstrate to you that the exclusive two-screw design is practically worth its weight in gold, all Worthington QD (Quick Detachable) sheaves now have two golden screws.

The clamp screw simplifies installation and assures permanent alignment. You can install QD sheaves one part at a time. No heavy rim and hub combination to delicately inch into place. You just slide the hub on the shaft and permanently lock it in position with the clamp screw. Then you slide the sheave rim into position on the hub. This job is simplified because you engage the large end of the sheave with the small end of the hub. To change speed you simply install another

sheave on the hub which remains anchored to the shaft by the clamp screw.

The set screw prevents "key drift." It locks the key securely in place, avoiding the danger of the key drifting off and becoming a safety hazard. This feature is appreciated by plant operators who first brought this potential danger to Worthington's attention.

You tighten the set screw without distorting the hub. The clamp screw allows you to locate the hub on the shaft. The locked hub then permits you to tighten set screw on key without distortion.

You can get Worthington QD sheaves anywhere in the U.S. More than 350 dis-

tributors carry Worthington sheaves and Worthington-Goodyear Green Seal V-belts. For your copy of a 100-page Multi-V-Drive Manual on how to select the right sheave and V-belt write to Worthington Corporation, Section 79-15, Oil City, Pennsylvania. In Canada: Worthington (Canada) Ltd., Brantford, Ontario.



Foreign Steel Gives Domestic Firms a Jolt

News Item: The largest single shipment of foreign steel products ever to arrive at Los Angeles was unloaded last week. The cargo brought here by a Republic of China freighter consisted of 6,000 tons of steel pipe, wire, angles, and reinforcing rods from Japan and Taiwan.

Cleveland—U.S. steel producers fear permanent loss of domestic markets to foreign competition as a result of the steel strike, Republic Steel Corp. Chairman Charles M. White warned last week.

White, speaking for the 12 big producers represented in the New York negotiations with the United Steelworkers, said that much of the steel moving through U.S. ports apparently is being purchased under long-term agreements "dictated by the strike situation."

White asserted that foreign steel producers are "pursuing the overseas markets for American steel relentlessly" although overall imports have fallen off in recent weeks due to pre-strike stockpiling.

But "until the strike is over we will not know how many more foreign customers for American steel have been won away by the foreign producers," White said, adding: "There is every reason to think that this may be a distressing number."

The American Iron & Steel Institute, simultaneously with White's statement, reported that foreign steel products imported in June totaled 410,005 net tons and exceeded exports for the seventh consecutive month. Buoyed by pre-strike buying, June imports went up 25,218 tons as compared with May and

was up more than 283,000 tons over the June 1958 total.

White said that West Coast representatives of Japanese steel-makers were reported supplying American customers with steel during the U.S. strike "only on condition that they continue to buy steel from these Japanese mills after the strike is over."

The Republic chief also noted the influx of foreign steel via Great Lakes ports since opening of the St. Lawrence Seaway. He quoted shipment statistics showing that during the first two weeks

of July, steel received at Buffalo, Chicago, Cleveland, and Detroit via the Seaway totaled 13,335 tons but jumped to 32,270 net tons at the same ports during the last two weeks of July.

Blaming wage disparities, White said "foreign steel competition was a serious threat . . . long before this strike." The American steel industry's "best hope of competing with lower cost foreign steel products is through increased productivity and increased efficiency in our plants," he concluded.

Alamet's Plant Puts a Brand New Element Into Domestic Magnesium Market: Competition

Selma, Ala.—A new domestic supply source has brought competition to the magnesium industry.

Alabama Metallurgical Corp.'s new plant here has started production of high-purity metal. Alamet officials believe their entry into magnesium production could mark the beginning of a growth similar to the aluminum industry when a second producer entered the field.

Magnesium is both cheaper and lighter-weight than alumi-

num. The only other private U.S. producer of magnesium is Dow Chemical with two plants.

Yearly output at the \$3½-million Alamet plant will be about 7,000 tons of high-purity magnesium. Current U.S. annual consumption is 50,000 tons.

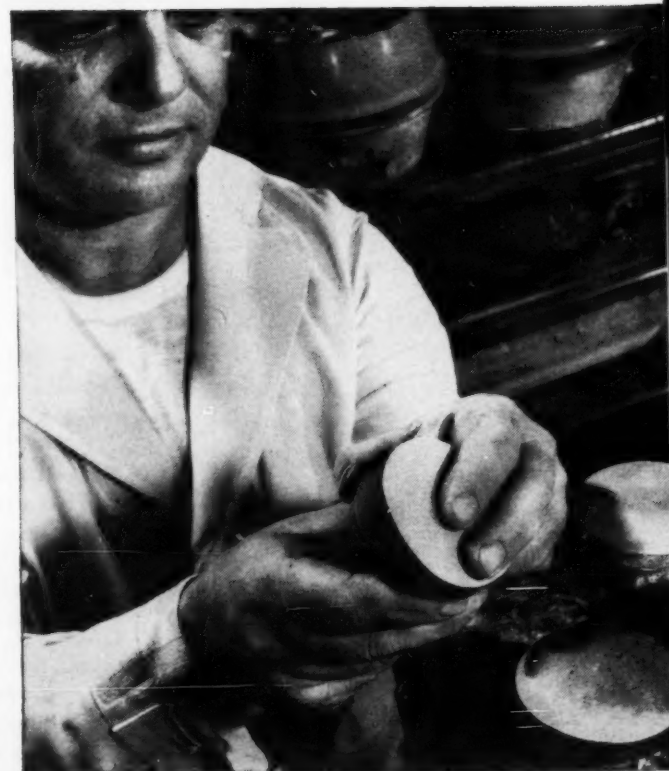
Formal opening of the plant—jointly owned by Calumet & Hecla, Inc., of Chicago, and Brooks & Perking, Inc., of Detroit—is set for Nov. 11, at which time capacity production will be in full swing.

How NS solved another special steel problem



LENS GRINDING—the intermediate grinding stage, called "fining" is done on this type machine. The square piece of optical glass, with corners trimmed away, is mounted on an overhead chuck which bears down on the fining tool. The fining tool surface is covered with a round piece of wire cloth (man's finger is touching edge of wire cloth) which carries the emulsified emery abrasive used in grinding the lens.

WIRE CLOTH disk is laid over tool surface and pressed down. Pressure-sensitive backing holds wire cloth to tool surface during grinding operation.



Pennsy Asks for Plastic Water-Line Pipe Material

South Fork, Pa.—Pennsylvania Railroad engineers specified corrosion-proof polyvinyl chloride plastic piping for a new 1½ in. water line here.

Metal piping material, they found, is eaten away too easily when subjected to corrosive conditions of cinder fills and solid containing cinders.

Leaching action of water passing through cinder-bearing strata dissolves out sulphur compounds and results in acid attack. Polyvinyl chloride piping, P. R. R. engineers found, is immune to this type of corrosion.

Other advantages of the plastic piping are ease, speed and reliability of assembly—with ordinary cement.

Steel Strike Is Delaying Start of Du Pont's Plant

Richmond, Va.—The steel strike will delay construction of Du Pont's first plant for commercial production of polyethylene, company officials stated here last week.

An additional delay in getting production machinery is also possible. But Pierre S. Du Pont 3rd, secretary and director, said he expects the multi-million dollar plant to be operating in about a year.

West Germany Aims for New Markets in U.S.

(Continued from page 1)
new field will bring retaliation or restrictions by the Americans.

Consequently, many of the giant engineering firms, for example, have been more cautious in bidding for big U. S. machinery contracts than the English have been.

Exceptions are in such consumer items as ladies' hats, where manufacturers have announced they will try to crack the market.

Bulk of dollar income this year will come from the automobile makers, led by redoubtable

Volkswagen. In preparation for competition from Detroit's compact cars, Volkswagen has launched its first major advertising campaign in the U. S.

Volkswagen sporting cousin, Porsche, is attacking the market by adding five regional distributors in the Mid-West, Far West, South and Southwest to its New York outlet.

A combination of advertising and strong geographical sorties outside the metropolitan New York area appears to be the general West German business

strategy for widening beachheads previously established in the U. S. market.

Backwardness in penetrating fresh territory in the U. S. is gradually being overcome by numerous licensing, sales and manufacturing arrangements between German and American firms, most of the latter outside of New York. Opening of the St. Lawrence Seaway also has stimulated particular interest in untapped Midwestern markets.

With the possible exception of automobiles, export tactic

usually is to concentrate on gaps left as a result of mass-production economies.

Special machines that are custom-tailored or made only in limited numbers; machines requiring a good deal of manual construction; the multiple-purpose machine that does not fit into an assembly-line—this has been fair game for the German exporter to his very substantial profit.

Increased effort in selling such machinery rather than tackling the American titans in their own backyard is in the cards for 1959-1960.

On the other hand, the biggest single item in the machinery

category (which is West Germany's number-two export to the U. S. after automobiles) is office machinery, entailing direct competition with American products. Price advantage with comparable performance and good servicing is and will continue to be the key selling point.

On the average, German export prices will hold their present level. In some instances, there will be cuts but usually of a marginal nature.

Emphasis on Quality

In the face of a drastic undercut in price on the American market such as that presented by Japanese optical and precision instruments, the German response is to emphasize quality, leadership, and experience to hold the price line. To this end firms like Zeiss and Leitz utilize the full prestige of their names and trade-markets against comparatively unfamiliar "foreign" foreigners.

Metal working industry is making preparations for an expanded flow of exports.

Industry associations report a great number of offers from U. S. firms wanting to act as representatives, adding that in many cases their approaches have been crowned with success. Best item is still cutlery with Solingen products tightening lines against use of name by outsiders.

Enthusiastic Reception

A measure of the German manufacturer's interest in the U. S. market was perhaps best given by the enthusiastic reception and publicity attending a visit this spring by a U. S. Commerce Department trade mission.

Although there had been three previous missions to West Germany, none matched this in volume of inquiries or intention by responsible German businessmen to establish American ties. In re-capping the trip, the U. S. Commercial Attache in Bonn cited the following examples from several hundred received:

A manufacturer of household gadgets wants to know about mail order selling; a manufacturer of dog chains and accessories wants advice on methods of merchandising in the U. S.; a manufacturer of special non-corrosive equipment used in the chemical industry asks about the feasibility of using the distribution facilities of a U. S. manufacturer of a complementary line; an exporter of Indian hog bristles wants to know how he can meet Pure Food and Drug regulations; and owner of a patent relating to dental equipment wants advice on how to dispose of the patent in the U. S.; several manufacturers in the machinery, chemical, pharmaceutical and clothing industry have surplus production capacity which they would like to sell outright or in licensing; a manufacturer of hand tools wants to know why his market in the U. S. has declined.

No Drop in Exports

With West Germany moving steadily ahead toward the position of number two exporter in the world, ahead of Great Britain and behind the U. S., economists here see no sharp drop in German exports to the U. S. ahead despite special factors such as heavy American buying of iron and steel semi-finished products in anticipation of the steel strike.

NS-REYNOLDS WIRE CLOTH CUTS ERRORS FOR LENS MANUFACTURER

A leading manufacturer of ophthalmic and corrective eye glass lenses has eliminated tool wear, reduced lens grinding error and cut production time with a new integrated surfacing system for grinding tools, utilizing National-Standard Reynolds wire cloth as an abrasive carrier on the tool surface.

NS SOLVES A PROBLEM—Before the addition of the wire cloth tool facing, it was necessary to regrind the lens fining tools after every 3 or 4 lenses—a time consuming, costly procedure. The lens manufacturer came to the Reynolds Wire Division of National-Standard for help in finding a wire cloth with the high-degree of uniformity necessary to serve as a facing for the grinding tools. Reynolds Wire engineers recommended 0.007-inch, electrogalvanized steel wire woven to

30x30 mesh. Wire diameter was held to within a 0.00015-inch tolerance.

Under testing by the lens manufacturer, it was found that the wire cloth's uniformity allowed precision in grinding that virtually eliminated re-working. Grinding tools no longer needed re-truing, human error in finishing was eliminated, and the wire cloth held the grinding abrasive uniformly across the tool face for greater accuracy.

EXPERIENCED ENGINEERING HELP of this kind, for jobs requiring specialty steel and wire is available to you from National-Standard. For the many thousands of applications where only specialty steel or wire will solve the problem, let National-Standard engineers go to work for you. Write for additional information to National-Standard Company, Niles, Michigan.

Manufacturer of Specialty Wire and Metal Products



DIVISIONS: NATIONAL-STANDARD, Niles, Mich.; tire wire, stainless, music spring and plated wires • WORCESTER WIRE WORKS Worcester, Mass.; high and low carbon specialty wires • WAGNER LITHO MACHINERY, Secaucus, N. J.; metal decorating equipment • ATHENIA STEEL, Clifton, N. J.; flat, high-carbon spring steels • REYNOLDS WIRE, Dixon, Ill.; industrial wire cloth • CROSS PERFORATED METALS, Carbondale, Pa.; decorative, commercial, and industrial perforated metals.



GRINDING TOOL with wire cloth layer is inserted into bottom chuck of fining machine. Chuck rotates the tool for about 8 minutes during fining operation.



LENSES go through fining operation in one of four machines shown in the foreground before being polished in machines at the rear. The addition of wire cloth has also cut the fining operation time.

Foreign Perspective

Malaya Nods Yes To Renewed Tin Pact

London—Biggest purchasing news here is the International Tin Council's decision to raise its members' export "quota" by 5,000 to 30,000 tons of tin. The hike was larger than anticipated. It means tin producers are now fully convinced that there's no danger of another slump in the metal's price.

With international demand rising evenly, the price should stay stable for some while ahead.

The current world tin agreement, which after being nearly a total failure last year, now has emerged as a successful stabilizing force. But it terminates on June 30, 1961. Drafting of a new pact will start this year, and the draft is to be discussed at a United Nations conference in New York in May 1960.

The Malayan government already has stated it will support any move for a renewal of the tin pact, which it considers has amply proved its value to the producer countries.

Meanwhile, no one here expects a recurrence of last year's cut-price selling by the Russians on world markets.

According to the chairman of the Council, Russia has kept its promise not to

sell more than 13,500 tons of tin in 1959, and relations with that country now are "excellent."

It is possible, too, that the Soviet Union is becoming a net importer of tin. That could have a further stabilizing influence on prices.

Stockholm—Trade delegates meeting here to draft a Free Trade Area treaty are being greeted by a sharp attack from British papermakers.

This vociferous group opposes the F.T.A. (A group involving Britain, Sweden, Norway, Denmark, Austria, and Portugal) and are making no bones about it.

It claims that at least one half of the output of paper and board in the United Kingdom—excluding newsprint—is directly vulnerable to competition from Scandinavia. It fears wholesale diversion of existing Scandinavian "common market" exports of paper and board to England.

However, it's unlikely the papermakers will hold up drafting of the F.T.A. treaty, scheduled to emerge from Stockholm by the end of October. All the countries involved see the F.T.A. as the only immediate answer to the refusal of Ceuromart countries to join a wider tariff-cutting association.

It's hoped the F.T.A. will put pressure on the common market countries to come to a new arrangement embracing all West Europe.

If that fails, it's argued, the F.T.A. at least is a workable trade scheme in its own right.

Moscow—East-West trade is getting a big boost from new consumer goods agreement signed between Russia and Britain.

It calls for an exchange of \$9.5 million in each direction during the year ending June 30, 1960.

The pact implements part of the Anglo-Soviet agreement negotiated last May. That agreement called for a \$5.6-million increase each way over 1958 consumer goods trade.

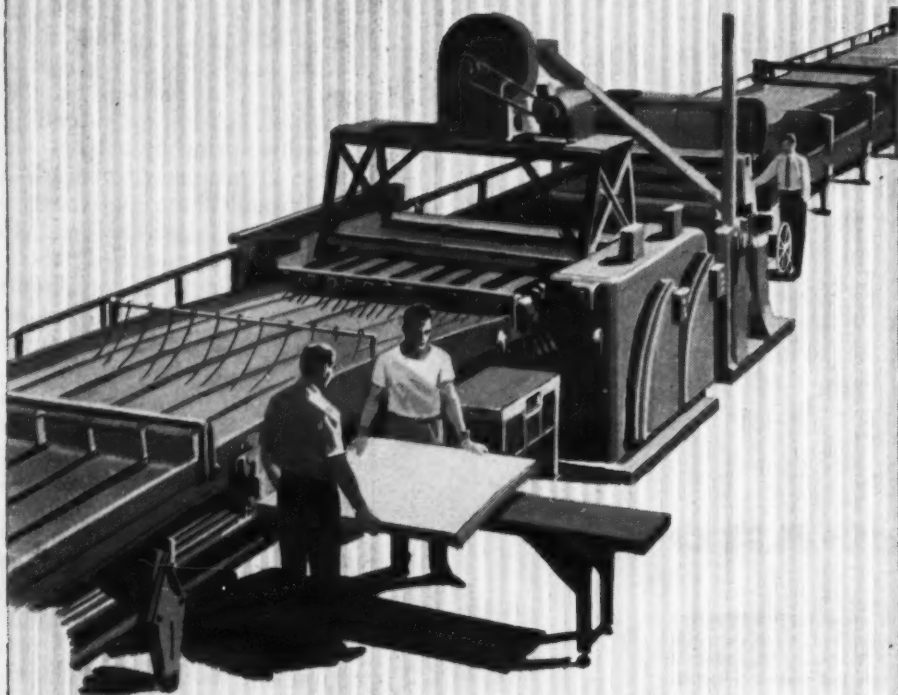
Largest quota category for British exports is woolen piece goods, with \$1.96 million. Motor vehicles quota (including spare parts) is \$728,000. Exports for medicine, drugs, pharmaceuticals (including raw materials) will come to \$280,000.

Other items on the U. K. export list include clothing, carpets, photographic materials, sports goods, musical instruments, toys, razor blades, liquor, earthenware and china, and toilet preparations.

Biggest category in Soviet exports to Britain is the \$2.8-million quota for canned crab meat, with \$1.4 million for canned salmon next. Medicines, drugs, and pharmaceuticals (including raw materials) come third with an \$896,000-quota. Motor cars (including spares) are fourth with \$420,000.

Other Soviet export items include cameras, wrist watches, matches, musical instruments, toys, vodka, caviar, cotton fabrics, perfumes, sporting guns, and ammunition.

Corrugated boxes...
by the mile



Miles of corrugated board roll off giant H & D corrugators like this one every hour of the working day. This production assures you of prompt delivery of quality boxes in volume. Better see H & D.



Hinde & Dauch

Division, West Virginia Pulp and Paper

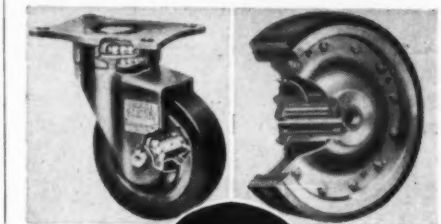
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Every Darnell product of our manufacture is warranted against defects in material and workmanship during its life to the extent that if any Darnell product fails because of such defect, we will either repair it, replace it, or make a reasonable allowance on the purchase of new Darnell products.



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British Titan Products, Ltd., Plans To Expand Titanium Oxide Output

Company to Construct 20,000-Ton Plant in Canada With Increases in India, Australia, South Africa

London—British Titan Products, Ltd., in which Imperial Chemical Industries has a 30% holding, is planning titanium oxide production expansions throughout the Commonwealth.

Largest slice of a proposed \$39-million expenditure will go for construction of a \$17-million, 20,000-ton initial capacity titanium oxide plant in Canada.

The company said that since it entered the Canadian market in 1950, sales have expanded four fold, and it now supplies about half the titanium sold there.

Another titanium oxide plant will be constructed in South Africa and expansions are planned for existing plants in Australia, India, and at the English plant at Grimsby. Individual costs of these projects are not given.

The South African plant will be erected in association with African explosives and chemical industries. It is scheduled for completion in 1962 and will have an annual capacity of 10,000 tons.

The Australian factory will boost its output from 8,000 tons a year to 22,000 tons by 1964, company says.

In India, output of Travancore Titanium Products' plant, in which British Titan has a large minority interest, will be stepped up 1,800 tons to 3,600 tons a year by 1961.

General Steel Forms Division to Handle Its Foreign Steel Imports

Minneapolis—General Steel, Inc., for 53 years a fabricating and warehouse firm, henceforth will concentrate on importing and warehousing.

General Steel announced the formation of Seaway Trading Corp. to operate as the firm's importing division dealing in foreign steel and steel products. At the same time, General Steel President Morton Cohen announced the company was quitting the fabricating business.

Stressing the "improved" quality of foreign-made steel, Cohen estimated that Seaway Trading and other importers would import 50,000 tons of raw steel and 2,000 tons of aluminum during the next year through Duluth for Upper Midwest fabricators. General Steel will stockpile imported steel at Duluth for winter delivery.

Demand Raises German Aluminum Alloy Prices

Bonn—Heavy consumption of aluminum scrap by U. S. smelters put steam under German aluminum-alloy prices last week.

Heavy demand plus a shortage of all grades of scrap aluminum here were blamed for a sudden price jump in aluminum alloys.

Although stocks of scrap were sufficient to meet smelters' requirements, German scrap buyers were hampered by heavy purchasing by the Japanese and increased U. S. consumption.

As a result of this global cause-and-effect, secondary aluminum-alloy ingots were costing more in Germany than primary alloy ingots. According to purity content aluminum alloy secondary quotes in Germany vary between 25.4¢ and 26.1¢ per lb.

German Labor Seeking Better Benefits, Conditions

Bonn—Instead of seeking substantial wage increases, German labor says it is going after improved fringe benefits and better working conditions.

The German Federation of Trade Unions, through its Economic Research Institute, announced last week that German trade unions will now press for longer paid holidays and a 40-hour week. In a recent test case, the German Textile Workers Union forced the industry to give its members three weeks paid vacation annually.

Indian Industry Forecasts Need for More Steel; Must Now Import from Red Countries and U.S.

Bombay—Indian industrial planners forecast a 70% increase in steel demand during the next seven years the government disclosed here recently.

Indian industry will require 7.33-million tons by 1966, compared to current demand of 4.2-million tons, according to latest estimates of anticipated future steel use.

At the same time, according to the report, Indian steel production, which cannot meet present demand, is expected to hit an 8.5-

million-ton capacity with the aid of three state-owned plants and other facilities going into production in the near future.

To meet a current shortage of steel here, the New Delhi government has contracted for shipments totaling 204,000 tons from Russia and 5,800 and 5,212 tons respectively from Poland and Hungary, plus \$60-million worth of steel from the United States using funds made available to the government through U. S. development loans.

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FEATURES — AO 283 and H-Series Face Shields

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Senator John Sparkman of Alabama Speaks Out

(Continued from page 1)
a portion of its purchasing activities with a reckless disregard for the very rudiments of sound purchasing methods.

"These practices would be intolerable in the world of business, for the simple reason that no business can be conducted at a profit which consistently and as a matter of method paid outrageously inflated prices for its raw materials, supplies, and equipment.

"Yet the payment of premium prices, over and above a reasonable market price," the senator declared, pounding a muscled fist on his well-worn mahogany desk, "is a common custom of the Department of Defense."

Sparkman, who heads the Senate Select Committee on Small Business, pointed out that "negotiation vs. competitive bidding seems to be the main obstacle on the course to greater defense buying economies.

"It also is blocking the way for more business for small business."

Too Much Negotiation

The Southern senator contended that the Defense Department now negotiates more than 85% of its purchases. He also said that more than 50% of the net value of military prime contract awards go to a mere 20 large corporations — "just 20 companies out of 4 million concerns comprising our national economy."

He told PURCHASING WEEK that reports of the Comptroller General of the U. S., comprising an examination of the pricing of 26 selected prime contracts negotiated by the Navy and Air Force and subcontracts negotiated by prime contractors, show that in a number of instances fair and reasonable prices were not negotiated. All estimated costs used in pricing were excessive by about \$29.2 million.

He also said that these reports disclosed deficiencies in the rental of government-owned facilities which resulted in a Navy loss of approximately \$478,000. The Air Force had an estimated loss in rentals from one company alone amounting to \$4.5 million.

One of Senator Sparkman's chief concerns is that the Department of Defense's contract awards given to small businesses as prime contractors has progressively decreased year after year. He offered the following evidence.

- 1944—25.3% of Defense contract awards went to small business.
- 1955—20.5%
- 1956—19.6%
- 1957—19.6%
- 1958—17.1%
- 1959 (11 months)—17.2%

"My committee and I are endeavoring to build a climate which would make it easier for small firms to get in on government business," the senator explained. "We are trying to reverse this downward trend in every way possible.

"We realize that small business is not equipped to handle a major prime contract such as building an entire airplane, an entire missile or an entire space vehicle. They are certainly equipped, however, to handle parts of these

contracts which could be awarded by the Department of Defense as prime contracts in their own right."

Sparkman also found fault with industrial purchasing executives, particularly those in the aircraft and missile industry—companies receiving the major portion of defense business.

"Defense Department buyers have been shifting more and more of their responsibilities to their purchasing counterparts in industry," the Alabama Democrat ex-

plained. "They have been awarding prime contracts to large corporations and giving those companies the responsibility of deciding whether or not to subcontract some of the work.

"Too often, however, when it comes to a make-or-buy decision the company decides to make. This has often led to excessive costs. When they do decide to subcontract, however, too often again they let this work out to another large corporation.

"These firms must be made to

realize that small business, if given the chance to bid for these subcontracts, can, in most instances, do the work better and at a much lower cost than many large firms."

Discussing again the need for more competitive bidding on the part of the Department of Defense, the senator told the following incident:

The Navy's Ships Parts Controls Center at Mechanicsburg, Pa., conducted an experiment last year to see whether it could

reduce costs through competitive bid buying. The results were "astonishing."

The center let competitive bids on 42 different products that had formerly been purchased on a non-competitive basis. It permitted small firms to bid on these contracts. As a result, the total paid by the Navy for these items was \$39,209.15.

The point, however, is this:

Had these items been purchased in the same quantities from the sole source suppliers on



On Purchasing, Small Business, Defense Buying

a negotiated basis as they had been formerly, the cost to the Navy would have been \$131,362.25—or an excessive cost of 70%.

"It may clearly be seen," Senator Sparkman said, "that simply by opening up these purchases to competitive bidding, the Navy, in this one series of contract actions, saved \$92,153.71. Here is proof that competitive bidding not only achieves lower costs and, many times, better quality but also that small business can loom large if

given the opportunity to do so. "The Department of Defense systematically—by force of long habit—is throwing away the taxpayers' money just as effectively as though the actual dollar bills were tossed on a bonfire.

"This waste is accomplished by the simple expedient of avoiding the savings that invariably accrue from competitive bidding and relying instead upon giving contracts without competition to favored companies, which as sole sources of supply, ask and re-

ceive for their products sold to the Defense Department prices that bear no relation to reality.

"The point is," Senator Sparkman says, "that it's competition and competition alone, regardless of the selling companies, that is essential if our military officers want to avoid having to pay two or three times what a product is worth."

When asked if he thought government buyers were capable of doing a better buying job, he snapped, "I certainly do. I be-

lieve our military procurement people are competent people but are not using their best efforts.

"They complain that competitive bidding would add to their administrative burden. That may be, but I am sure, administrative burden or not, that it's the only way to wipe out waste and at the same time help bolster a strong and healthy small business economy in this country."

Senator Sparkman explained that the Department of Defense now operates on a management

or weapons system. This simply means that the corporation awarded the prime contract is fully responsible for the entire product.

He proposes that it change to a G. F. E. system of operation—a government furnished equipment system. This means that instead of the Defense Department awarding the contract in toto, it would break the contract into primes for various component parts and allow firms, particularly small business firms, to bid on these contracts.

An 'In' for Small Business

"I believe such a system would go a long way in achieving the objectives of our committee. It will permit small business to get a crack at what it is entitled to, a greater portion of government business."

Sen. Sparkman also is hammering away against opponents to his committee's "C. of C." program—Certificate of Competency.

"Under the 1958 Small Business Act," he explained, "a provision provides that wherever there is a small business firm submitting a low bid on a particular procurement, contract, and the contracting officer claims he is not qualified to produce the item, the Small Business Administra-

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SEN. JOHN SPARKMAN

tion has the authority to make a survey of the firm. It determines whether or not the company has the technical know-how, physical capacity, production experience, and financial responsibility to perform the specific contract with terms relative to delivery and performance.

"If it decides the small business concern is qualified, its decision is all-inclusive and has to be accepted."

The senator summed up his views by telling PURCHASING WEEK of his two major goals:

"I would like to see prime contractors subcontracting more work to small firms instead of doing it themselves. But even more, I would like to see the Defense Department change its buying attitude and let more prime contracts to small business on a competitive bid basis.

"This, I am certain, would be a milestone in achieving economies in defense procurement."

To Write Better Purchasing Reports, Act on

(An engineering graduate and also a former teacher of college English, Tom Johnson is an associate editor on another McGraw-Hill business paper, American Machinist. In addition to his regular work, he conducts periodic seminars on writing for editors from other McGraw-Hill magazines. His chief interest since coming to McGraw-Hill four years ago has been business writing—what it is, what makes it effective, and how it can be improved. Here are the 10 points he urges you take to heart.—Ed.)

BY TOM JOHNSON

I. KEEP YOUR LANGUAGE NATURAL.

Too many people in industry violate their own business principles when they write reports. In their work they are frank, specific, lively; when they write about their work they are indirect, abstract, dull.

Report writing has the in-

redients of good conversation: The language is natural, the ideas are naturally developed, and the author is attuned to the reader's natural frequency. But writing should be more than everyday talk; it should be conversation refined—without the looseness, the stuttering, and the repetition.

Here's how to test your own use of language. Read each sen-

tence in one of your reports, then ask yourself this question: "If I were talking to someone, would I say the same thing?" If the answer is no, rewrite the sentence. Put it into more natural prose.

Suppose you discover that you have written this sentence: "It is suggested that the techniques of Value Analysis be applied in order to reveal the optimum material to be used in the recently developed cabinet."

If you were talking to someone, you'd probably express the same thought this way: "Speaking of that new cabinet, we ought to find out whether Value Analysis can show us the best material to use."

This version certainly is more direct, more readable. But it needs further editing. "Value Analysis can show what material is best for the cabinet." The original idea appears in far shorter form, but the chief advantage here is that the sentence is more understandable, because the language is more natural.

II. AVOID PASSIVE VERBS.

Passive writing is dull writing. When too many passive verbs creep into your sentences, they become indirect, tentative, falsely modest. The result is that your recommendations become less forceful, because you have lost the initiative.

A passive verb is easy to recognize. Any past participle preceded by some form of "to be" forms a passive verb: *was taken, are called, has been sold.*

Notice, in the following example, how much more forceful writing becomes when active verbs take the place of passive ones:

Passive: He *was told* by the vendor that four copies *were required to be signed.*

Active: The vendor told him that he had to sign four copies.

Try this test on your own writing: Underline every verb in a passage of about two hundred words. If more than half are passive, rewrite the passage to reduce this percentage to one quarter.

III. AVOID ABSTRACT NOUNS.

When a noun has a generalized, all-inclusive meaning, it is abstract. Words like *problem, case, nature, and question*, are abstract when they do not have a specific meaning in a sentence. Substituting a concrete noun—one that has only one possible meaning—will always improve the sentence.

The italicized words in these sentences are abstract:

- The *nature* of the inventory *problem* was such that the turnover ratio was 6 to 1.
- The *question* of where to buy steel escaped the mental *capacity* of the purchasing agent.

Abstract nouns weaken business writing in three ways: they

30-Second Quiz to Test Your Report Clarity

- | | | |
|---|------------------------------|-----------------------------|
| 1. Is my language natural? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 2. Are my verbs active? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 3. Are my nouns concrete? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4. Are my proposals personal? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 5. Are my phrases wordy? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 6. Will my reader understand each idea? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 7. Are my recommendations up front? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 8. Is each of my sentences crystal clear? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

(Correct answer for all questions, except #5, is "yes". Score 10 points for each correct answer. Rating: 10-30, poor; 30-60, average; 60-70, good; 70-80, excellent.)

are ambiguous, they make the sentence wordier than it need be, and they usurp the place of the real subjects.

Here are the above sentences, rewritten in more concrete language:

- Turnover ratio of the inventory was 6 to 1.
- The purchasing agent didn't know where to buy steel.

IV. MAKE YOUR PROPOSALS PERSONAL.

Many business reports are impersonal, especially when they discuss things instead of people. Usually the effect is one of detachment, in which the author invites the reader to make up his mind. "Here are the facts," he says. "What do you think of them?"

The following statement deserves thoughtful consideration: The man who writes "it is recommended" makes a suggestion; the man who writes "I recommend" automatically becomes an authority.

Remember that you know more about your subject than anyone else in the company. Personal statements always show others where the authority lies. The next time you make a sug-

gestion, use the first person singular.

V. AVOID WORDY PHRASES.

Business reports often contain too much "deadwood"—awkward, wordy phrases that can be reduced to one word or omitted entirely. "During the course of" can usually be shortened to "during." In the same way, "due to the fact that" is never as effective as the single word "because."

Carving away this excess fat always leaves a shapelier sentence, one more direct and easier to read. Here are some other wordy phrases to avoid:

in the case of
the question of
by means of
in the nature of
with reference to
with regard to
in connection with
for the purpose of
on account of
on the part of
such that

VI. REMEMBER THAT YOU, NOT YOUR READER, ARE THE EXPERT

Your report is an explanation of what happened, how it hap-

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These Ten Hints

pened, and why it happened. Only you know all the facts here; if you leave anything out, the reader himself has to probe for the missing information.

Don't forget to put in background material, so that your reader can orient himself to the subject. Define trade terms that may mean something different to an outsider. The term "fixed expenses" might mean one thing to you, something quite different to the plant manager or the cost accountant.

Don't feel that you may annoy your reader by over-simplifying your report. The reader is rarely offended at reading something he already knows—he's flattered. One highly successful purchasing agent always writes (mentally) "Dear Mother" at the top of his reports to management. By writing so that even she could understand him, he puts across his ideas fully, clearly, and readably.

VII. PUT YOUR PROPOSALS UP FRONT.

It is a mistake to think that the end of a report is the logical place for the conclusions you draw or the recommendations you make. Remember that you are not writing a mystery novel, where the key to the door isn't available until the final page. It's far better first to let management know what you want, then explain why you want it.

The psychological advantages here are considerable. First, you let the reader know exactly what you're fighting for. Secondly, you automatically give him a concrete introduction to the report, one that orients his thoughts in the direction you want him to take. Finally, you have a much better chance to win your fight, because your proposals will be uppermost in his mind as he reads the rest of the report.

VIII. KEEP YOUR MAIN POINTS UNCLUTTERED.

A proposal is most effective when it is stated clearly and concisely. It belongs at the beginning of a paragraph, not at the end. If it is important enough, it deserves a paragraph all to itself.

Don't hide your main proposals behind useful but unimportant details. If you decide to recommend purchase of a certain motor, don't mention the type of enclosure, rotor-stator construction, dimensions, serial number, and a score of other details that the reader can easily find on a separate specification sheet. Do mention significant details that will strengthen your proposal: a new feature, an improved service, a cost saving.

Here it is important to remember who your reader is. Some details will interest him greatly, others may put him to sleep. Your proposals should stand out clearly, reinforced by only a few significant details.

IX. DON'T BE AFRAID OF LONG SENTENCES.

The trend in modern writing to shorter sentences and shorter paragraphs is not always as sound as it might seem. Short

sentences may seem easier to read, but they are often harder to understand. The danger here is that important details may be omitted; or they may be separated from their logical positions in the report.

When long sentences are poor, the fault lies not in the number of words, but in the selection and use of the words. Because they are long, these sentences often become a haven for poor constructions that might not escape

detection in a short sentence. Consider the following sentence:

The question as to the desirability of selecting aluminum or steel as the basic material for the proposed product revolves chiefly around the problem of coordinating production, purchasing, and design activities in such a manner as to preclude costly changes in manufacture once the final conclusions have been arrived at in a proper and equitable manner.

This sentence is bad not because it is long, but because it is abstract, because it is wordy, and because it is difficult to under-

stand with just a single reading.

X. REVISE YOUR REPORTS.

Every man who has to write a report believes he is the only man in the world who finds writing difficult. His reaction is genuine, because writing is difficult—for everyone. As long as so much labor is involved, it's too bad that so few writers expend the extra effort to make their reports more effective.

How do you edit a report? Any professional editor will tell you that editing can't be reduced to a set of rules. But the ten pointers discussed here, even if they don't show you how to

write, can help you to edit your own writing.

After you have completed the first draft of your next report, ask yourself these questions: Is the language natural? Are the verbs active? Are the nouns concrete? Are your proposals personal? Are wordy phrases absent? Will your reader understand every idea you have expressed? Are your recommendations up front, concisely written? Is each sentence a model of clarity?

If your answer to each of these questions is "Yes," then you have written a superlative report. Otherwise, sharpen your pencil.

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Size of Tubes	CARBON		STAINLESS
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1/4			16-25
3/8	14-22		16-25
1/2	14-22		14-25
5/8	13-22		14-25
3/4	13-22	13-16	12-25
7/8	13-22	13-16	12-25
1	11-22	11-16	11-25
1 1/8	11-22	11-16	11-25
1 1/4	11-22	11-16	11-25
1 1/2	11-22	11-16	10-23
1 3/4	11-20	10-16	10-23
2	11-20	8-16	10-23
2 1/8	11-20	8-16	10-23
2 1/4	11-18	5-16	8-22
2 3/8	11-18	4-16	8-22
2 1/2	11-18	4-16	8-21
2 3/4	11-18	4-16	8-21
3	11-18	4-16	8-20
3 1/8	11-18	3-16	8-20
3 1/4	11-18	3-16	8-20
3 3/8	11-18	3-16	8-20
3 1/2	11-18	3-16	8-20
3 3/4	11-18	3-16	8-20
4	11-18	3-16	8-20
4 1/8	11-16	3-16	8-18
4 1/4	11-16	3-16	8-16
4 3/8	11-16	3-16	8-16
4 1/2	11-16	3-16	8-18
4 3/4	11-16	3-16	8-18
5	11-16	3-16	8-18
5 1/2	11-16	3-16	—
6	11-16	3-16	9-20

*Intermediate sizes, also larger and smaller sizes and heavier walls are available. Square, rectangular and other tubing shapes are also available in peripheries from 1" to 20" inc.

CARBON GRADES

Grade Designation	Carbon %	Manganese %	Phosphorus % Max.	Sulphur % Max.
MT 1010	0.05/0.15	0.30/0.60	0.040	0.050
MT 1015	0.10/0.20	0.30/0.60	0.040	0.050
MT X1015	0.10/0.20	0.60/0.90	0.040	0.050
MT 1020	0.15/0.25	0.30/0.60	0.040	0.050
MT X1020	0.15/0.25	0.70/1.00	0.040	0.050

HIGHER CARBON AND ALLOYS

Grade Designation	Carbon %	Manganese %	Phosphorus % Max.	Sulphur % Max.
C 1025	0.21/0.28	0.30/0.60	0.040	0.050
C 1026	0.21/0.28	0.60/0.90	0.040	0.050
C 1030	0.27/0.35	0.60/0.90	0.040	0.050
C 1035	0.31/0.39	0.60/0.90	0.040	0.050

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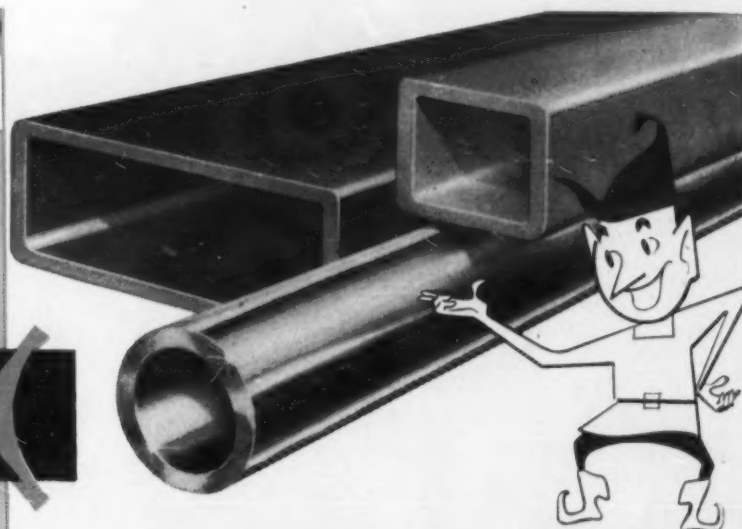
Stainless Steel Pipe Sizes are available from 1/8" I.P.S. through 2" I.P.S. in A.S.A. schedule 40S; from 1/8" I.P.S. through 4" I.P.S. in schedule 10S; and from 1/2" I.P.S. through 4" I.P.S. in schedule 5S wall thicknesses. Inquiries for larger diameters should be referred to a quality stainless steel pipe producer listed below.

STAINLESS GRADES

Type No.	Carbon (%)	Chromium	Nickel	Other Elements
302	.15	17-19	8-10
304	.08	18-20	8-12
304L	.03	18-20	8-12
309	.20	22-24	12-15
309S	.08	22-24	12-15
309SCB	.08	22-24	12-15	cb10XC Minimum—1 Maximum
310	.25	24-26	19-22
310S	.08	24-26	19-22
316	.08	16-18	10-14	Mo. 2-3
316L	.03	16-18	10-14	Mo. 2-3
317	.08	18-20	11-15	Mo. 3-4
321	.08	17-19	9-12	Ti 5 X C Minimum
329	.20	23-28	2 1/2-5	Mo. 1-2
330	.15	14-16	33-36
347	.08	17-19	9-13
348	.08	17-19	9-13
430	.12	14-18
442	.20	18-23
443	.20	18-23

(*) Maximum—unless otherwise indicated.

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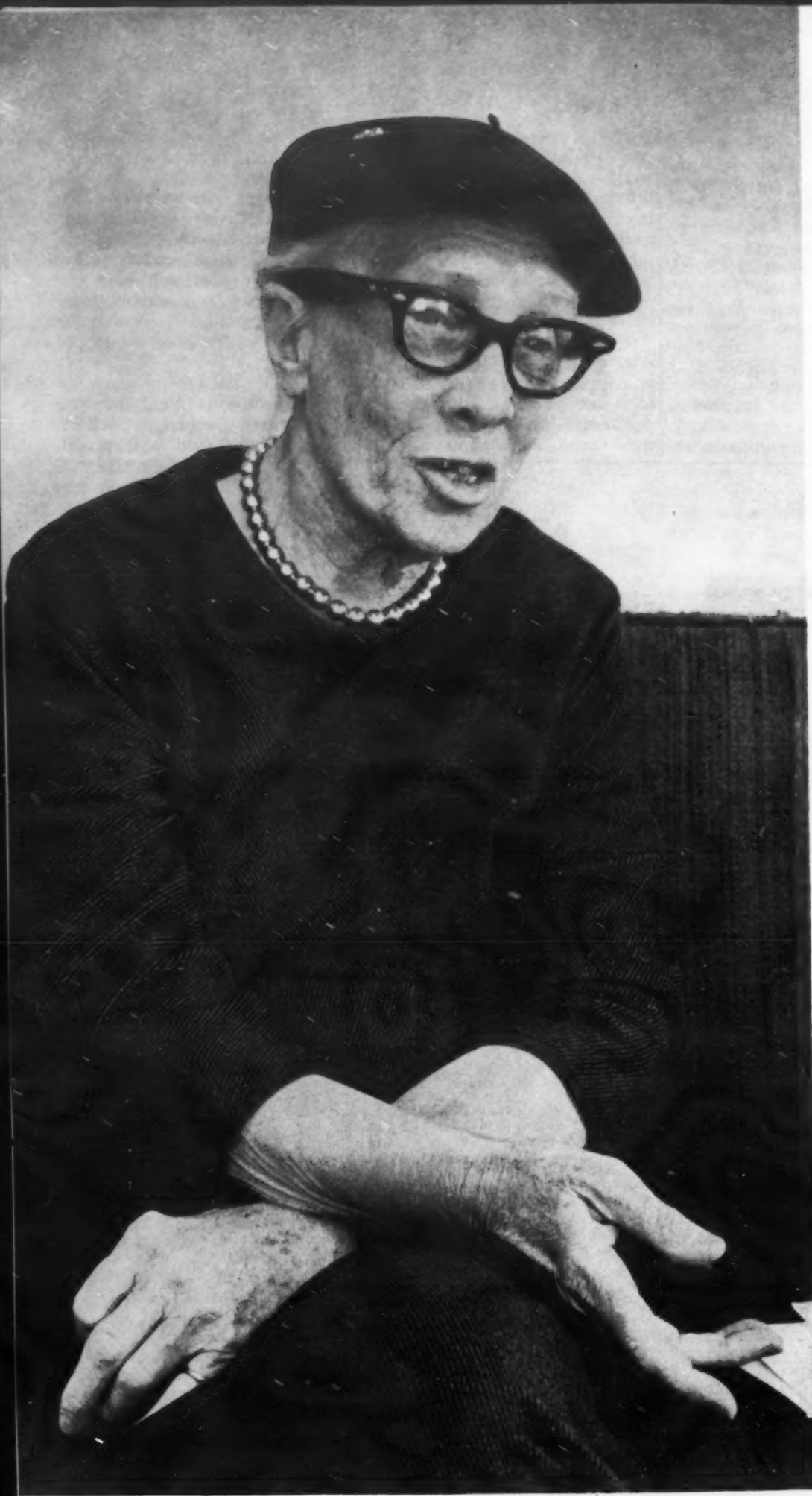
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The Mainstream of Man

Q: One of the reasons we wanted to talk with you was that we are starting a series on management. We feel that perhaps too many purchasing agents operate rather than manage. The job runs the man rather than the man running the job. And we feel that there are some contributions we can make to point out how his job can be managed.

L.G. (Dr. Lillian Gilbreth): If you can once convince the purchaser that he is a manager, I think perhaps he will get himself in the main-stream.

Q: What else do you suggest?

L.G.: Well, in the first place, I think, define "manager." I have always liked Mr. Appley's definition: Somebody who gets things done through his own effort and that of other people. And I think that's simple enough to start with.

I like to think that we manage in five areas. We manage ourselves—we hope. We work in a home and family. We do a citizen job. A volunteer job. And we do a business job. I think building up the status of a man in purchasing, making him realize that real managing is important to him would be the first step.

Q: That's what we are going to do in our series. We are going to define for him first of all what he's striving for. Also what he has to do to become this type of person.

L.G.: Which means on management's side, recognizing how important the work is. Not only so that the purchasing agent may save money for the organization, but also that he may furnish new ideas, extend new possibilities. But the purchasing agent must widen his own interests and viewpoint. He must know what the framework of his organization is. What its aims are. What its ethics are. What its policies are.

For the P. A. interested in managing there are two things. First, "think" Then learn the whole company function and organization framework.

Q: It's good to hear you say that.

L.G.: I thoroughly believe it. And I



Purchasing Executive Development

feel that the years have thought about—not only years but decades—might perhaps be a little help in getting the purchasing agent to recognize the importance of managing his job.

Q: When did you gain this feeling about purchasing?

L.G.: In the begin

ning of our work simplification, we realized there were two people not receiving recognition. One was the accountant. This person could tell us what had it cost, what could it cost, and how could we reduce the cost. The other was the purchasing agent, who knew materials and machines and might—if he cooperated in motion study—even know methods to the point where he could suggest some new ones.

Q: What part can purchasing play today in company decisions?

L.G.: One of the things the war brought us was something called "the interdisciplinary approach," where people from different departments and areas got together to discuss things.

I remember I worked during the war in a plant making instruments of precision. And we set up weekly get-togethers on subjects like safety—not only with the safety department but also with the industrial engineer, the personnel man, and so forth. And we found that by reaching across functional departmental areas, to get people who represented various viewpoints, we got better results.

Well, it seems to me that the purchasing agent more and more should be a part of such informal groups or get-togethers. Once you get him in and he is able to speak, he gains confidence as he sees that what he has to contribute is worthwhile. And it gives other people an idea of what is in purchasing.

Q: We feel that the purchasing agent has much to contribute. He has a broad background of things and can speak with a voice that should be heard by other members of industry.

L.G.: Exactly. I think another thing which is very interesting is the realiza-

Who Is Dr. Lillian Gilbreth?

First of all she is a warm-hearted person known to many as the mother of the 12 children described in "Cheaper by the Dozen." Her continuing sympathy for human values (so well described in that book) is what impels her, at age 81, to continue teaching and studying scientific management around the world.

Perhaps she is best known as a pioneer in motion study, continuing the work of her husband, Frank Gilbreth, after his death in 1924. For this she has been showered with honors: 19 honorary degrees, and three earned degrees. She has served on three university faculties. In 1943 she was awarded the Gantt Medal by American Society of Mechanical Engineers and Institute of Management. In 1954 she received the Gold Medal of the International Committee of Scientific Management.

Although hailed in one of these awards as "the greatest woman engineer in the world," Lillian Gilbreth graduated with a degree in psychology. It perhaps was the blending of this background in human relations with that of her husband in work measurement that developed the Gilbreth brand of management—"that management is a social science centering around the human being."



"A good manager is one who handles his drives constructively."



"Purchasing has been interest to me for 8

gement and How the Purchasing Agent Fits In

tion that management principles and practice extend into every activity, both in and out of business. Schools, libraries, and volunteer organizations all are picking up this type of management activity, realizing that it applies to them. If the purchasing agent realizes he is part of the group that evaluates and decides, this will give him new opportunities and new stature.

Q.: In trying to define the subject of management, what we're trying to do is get to the hard core of a vast flood of management material.

L.G.: I'm sure you've considered both the technical side and the human side.

Q.: That is one thing we want to ask you. When we speak of managing, does it involve more than just dealing with people?

L.G.: It seems to me that the old concept that a manager personally should hold each job and learn each technique before he manages, only proved that he might go on endlessly before he got to do what he was supposed to do. So many people I think, get a little off the beam when they think managing is all technique—techniques of selecting people, psychological tests and all the rest of it. And yet others, the warm-hearted kind, feel you can just love people and that is all that's needed. Yet both may really be lacking in the technical part of the jobs being filled.

It seems to me a manager must know technical problems as well as the human relations part. He must be a warm, friendly kind of person who can make people feel immediately that he is interested in them.

Q.: When you talk about scientific management, somehow it has a cold, hard ring to it.

L.G.: I'm rather surprised to find that that is true, that most people feel that scientific management and sciences and scientists are very cold, objective, and unsympathetic. When we make it clear that the reason it's called scientific management is that it stresses the questioning aspect, asking constantly—What do you do? Who does it? When and where and how? And all the time "Why"—then I think they'll see that it isn't cold. You can't really keep asking "why," if you're a decent human being with any interest

at all in people, without becoming personally involved.

Q.: What are we talking about when we say "leadership" and "management"?

L.G.: I think we're talking about people who are able and willing to make decisions, and are able and willing to share the reasons why they made those decisions with the people affected.

One thing I think we're negligent about is explaining the importance of a function and the importance of the function versus the person in the function.

This is not, perhaps, germane but it's exactly what I mean. When the children were small two of them were out rowing. When they got in—the big boy put his sneakers on and the little boy rolled up his trousers and carried the big boy in on his shoulders. I waited at the house until the big one was alone and asked him, "Bill, why did you let that little boy carry you in?" And he said, "Mother, I'm the captain."

To me, that epitomizes the function. If you're a captain, the crew does carry you in. This is germane to the management question. We have to be scientific in the colder sense, and ask "What does this job demand?" A man taking the job must do the things the job requires. Everybody should recognize that if you accept functions, then you must accept the fact that they must be fulfilled. But it doesn't mean that you can't be warm and friendly. It's like a parent's job in controlling a child, to channel his activities into socially-accepted behavior.

Q.: Doesn't leadership come in two ways—both from knowledge and respect?

L.G.: Yes, that's true. One of the encouraging things being discussed all over the world is: Who makes the decisions? And why?

It is one of the core questions in management and I think it's one of the things a purchasing agent must constantly face. What is his decision-making power and where does it end? I think very often, when it comes to questions such as "Where does he belong in the organization?" and "What is his status?" that he can very quickly learn exactly where he is when it comes to making decisions.

Q.: Do you feel purchasing can be used as a position for training people in decision making?

L.G.: Yes. From the very beginning, my husband was very much interested in what he called the three-position plant, where you hold a job but are always studying for the job ahead and still helping the man coming up the line. Purchasing should fit into this pattern because the status of the purchasing agent is so often determined by whether the people up the line—the main executive stem—have come up through any such experiences at all. If somebody comes up through production, or maybe possibly marketing, and certainly if he's come up through finance or controlling, he appreciates purchasing. But if you get somebody who's come up through public relations or human relations—he hasn't had much of the inner workings of the organization. Then you may find that it's very difficult to push purchasing and get the kind of recognition it deserves.

Q.: One of the approaches now being used in purchasing education is to expose all the people going through business school to the value of purchasing. So if they become a top manager, whether it's in sales, engineering, or wherever it may be, they appreciate the potentials of purchasing.

L.G.: I saw that myself when I visited Stanford Business School and I also saw it abroad in the different schools.

Q.: In getting to the hard core of managing, there's a confusion of terms. Are we talking about the same things when we say executives, managers, and supervision?

L.G.: I don't think I'll be a great deal of help to you. Because I have worked in management areas so much, where everyone translates for himself, I can only tell you that I think terminology is of tremendous importance.

But I would like to say something more about purchasing education. It seems to me that from the beginning of management organizations—A.S.M.E., S.A.M., A.M.A. and so forth—that what they could do from the educational standpoint has been part of the picture and that P. A.'s can get more and more help from them. These organizations, all through the country, are willing to go into established educational projects if they are only asked.

Everything is available from the permanent large set-up of A.M.A. down to

the simple sort of thing you'll find in a little town which will tie up with the Foreman's Club or the local Y.M.C.A. Many management societies belong to the C.I.P.M.—Committee for International Progress in Management. And that, of course, is a part of the international group with headquarters in Geneva.

Q.: What can these groups do for purchasing?

L.G.: Through these organizations groups like purchasing have an opportunity, first of all, to get on programs or sit on roundtables and present their problems, second, to ask for speakers on different subjects in all of the management areas.

I think there is such a wealth of new things, new approaches coming along, that we can't expect the societies to go out and seek each group and ask—What can we do? Each interested group should join a society and say, "Look, this is what we need!"

Q.: You feel then that management societies like S.A.M. or A.M.A. do do something to help?

L.G.: I think that all of these organizations, whether they happen to be large and formally organized, or small and local, offer opportunities to get what is needed.

Q.: You mean in the purchasing field?

L.G.: Not only in the purchasing field, in any field.

Q.: I have this feeling, and it may be wrong, but some purchasing agents and other people are suspicious of the term, management. We've been brought up to believe that you only obtain something by hard work. If you imply that you should sit back and think a little, it seems like you are cheating a little bit, that you actually aren't working.

L.G.: We have an answer to that, haven't we? In the first place it's wonderful that President Eisenhower recently said that he feels some time should be allocated to thinking.

It's significant that most people are afraid that they don't know how

(For More of the Same,
Turn the Page.)



Continual
decades."



"The P. A. is someone who could
give us valuable information."



"Management principles and practice
extend into every activity."



"The P. A. more and more should
be part of informal get-togethers."

The Mainstream of Management: Is a Manager Born or Made? Dr.

(Continued from page 29)

to think. I had a graduate student at one of the colleges. We were having a long discussion with the group as to what to do. He said, "In one word, what do you really expect us to do?" And I told him, "I expect you to think" And he said—"Gee, it's the first time in my whole life anyone asked me to think."

Q.: Can any interested P.A. develop into a manager, or is a good manager born not made?

L.G.: I think they're probably both born and made. From the human side, certainly a manager has to be somebody having an interest in people. Someone willing to take time to focus his thoughts on their problems and their way of seeing things. Some people seem to have been born with a very open, approachable nature.

But I also think that many people develop that through life. As we know, there are "late developers" in the intellectual aspect. I don't know why we can't make great developments from the standpoint of being approachable too. I believe in life-long learning, and I don't know why it can't affect every area in one's life.

Q.: When we talk about whether managers are doing a good job, is there anything that you feel is valuable in measuring his performance?

L.G.: Just general ideas. It seems to me that you've got to be pretty sure that your techniques of evaluation have been checked by the best experts available. I feel that too often questionnaires in the fields of performance measurement are made by well-meaning but untrained people. Every attempt should be gone over carefully by people who are experts, so that we know that we don't suggest the answer by the question. In the second place, I think we ought to be able to find out not only what has taken place, but why. So many people bring to their job worry and upset. Actions may sometimes make you feel that something is wrong in the plant. Actually, it may be something personal. So that it's got to be something looked at all the way around and checked, very accurately.

And again, I think it's probably more or less an interdisciplinary thing that the person doing the evaluation of some personnel thoroughly understands the structure of the company.

Q.: Purchasing people for years have been seeking for a way to measure the performance of their department. They have never arrived at a satisfactory solution.

L.G.: Because, I think, there are so many variables in the situation. It's just like trying to find the answer to why people buy or don't buy.

Q.: You mean in the marketing area?

L.G.: Yes, exactly so. You get everything all ready for a wonderful sale. Then somebody gets a noble idea of writing a piece for a newspaper that says we have done a lot of spending for things and have now come to the point where we should start saving.

And then people refuse to buy.

Q.: Do you think there are too many variables in the purchasing functions that make it difficult to evaluate by top management?

L.G.: Yes. There are variables in almost any field, but I would say that the purchasing agent, by nature of his job, probably comes in to a variety of problems that make evaluation quite difficult—but I would go on trying.

I think of one thing that might

help. Carefully study graphs to see what part in company success or lack of success the purchasing department has had.

Q.: Can purchasing performance be tied in with company objectives?

L.G.: I think we're just in the early stages of getting significant, stimulating, and informative ideas from the performance yardsticks.

Q.: When we talk about measuring performance, we can often

point to somebody and say—"He's a successful manager." Is there anything that typifies a successful manager?

L.G.: A successful manager, I think, is one who personally knows the conditions in which he works and the framework in which he works. He checks constantly the really important things: Has he complied with the standards of the company? Has he maintained integrity? Does integrity go all the way up and down the line? Can you believe what he says? Is he really effective in using modern management techniques?

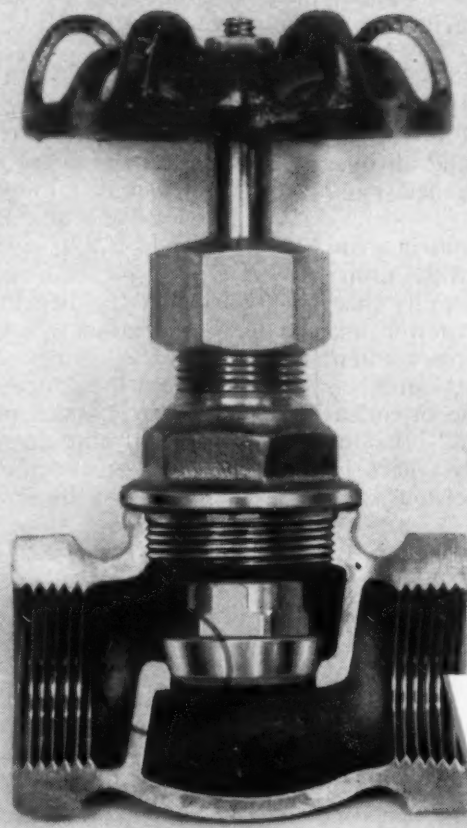
techniques?

The ones I know best really work at the job. They have delegated effectively everything that could be delegated, but with the realization that they are still responsible. Every day they have reports in front of them showing how well they are doing. They really know where they are. When they make decisions, they have the support of the organization and confidence of the people.

Q.: Someone recently said that

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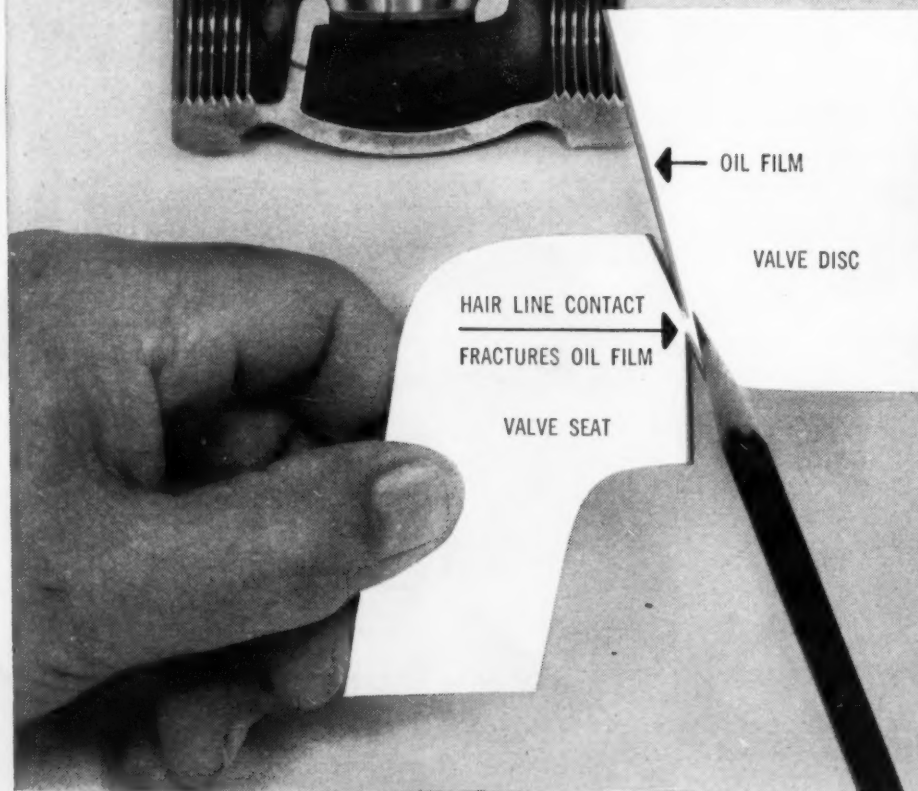


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Gilbreth Answers: Both

awareness is a prime attribute of a manager.

L.G.: That is perfectly true. I read a very interesting paper just before I came back from Europe, written by a German for top-rank managers. He listed four things required of good managers:

1. A wide viewpoint.
2. Know your own goals, measuring against them as you go.
3. Ability to make decisions.
4. A warm, friendly personality.

But that isn't the whole thing.

Q.: To me a good leader, whether it's in business or otherwise, has the ability to motivate people—to get them to want to do it. Is there anything that can be developed here?

L.G.: I think it is a real, a big need in teamwork. Not just giving lip service but recognizing that every member, in some way or part, has a contribution to make. If you feel that—if you really feel it—I think you've got the motivation to go ahead.

Q.: Is this true in other countries?

L.G.: In Europe they call it cooperation, and it's developing all over the world. There are 29 countries in the International Committee of Scientific Management (C.I.O.S.). I went to an executive committee of C.I.O.S. in Greece just about a week ago. The same problems and the same ways of going at problems were evident—and the same feeling that teamwork is the answer. How you get the team to work, of course, is difficult.

Q.: Is showing appreciation part of being able to motivate people?

L.G.: Oh yes. Part of that has become a pretty well established procedure. But it still, I think, remains unpracticed. I've seen top executives who go along with this, but get so wrapped up in something that they just go through the plant without saying "good morning." I think it's as often a problem within the personality as to whether they practice this accepted technique.

Q.: If a young fellow wants to become part of management, is there any successful educational formula for him to follow?

L.G.: Of course, I'm a firm believer that education starts in the home and goes all the way up the line. I believe that a man who decides somewhere along the line that he is going places should, as objectively as possible, look down the line and see what he's got and where he is. He should begin to expand the things that are useful and compensate for the shortcomings. He should look to see where the facilities for his life-long ambitions are. Papers like your own are a great help because here are people who really know what purchasing is and can be. It's amazing to me, as I have read management publications now for several decades, how much more thought there is of what the reader needs, of what the reader wants, and everything that you can possibly dig out that would be effective.

Q.: Even in our own editorial

field a constant complaint is that there's just too much material to read.

L.G.: I'm sure that is true. And I'm sure that men realize how difficult it is that we haven't yet trained or utilized enough librarians to sort out quickly valuable material. I think of the library as a life-long learning project. Because as soon as you write your name as a member, wherever you go in the world, an information service has what you need. I know of a good example at the Staff College in Henley,

England, where the librarian sits in on planning sessions. Now, how many companies have librarians who sit in on planning periods, so that they know what's going to be wanted in books, magazines?

Q.: Very few I can think of off hand.

L.G.: You see, the librarian is too often called in after everything is set up, and asked to bring in all required material.

Q.: Well, I can't help but think of a simile, between that and purchasing. Many times purchasing is called in after plans have been made.

L.G.: That's what I feel so strongly about especially when it comes to the work simplification area. Purchasing should be consulted before plans are final.

Q.: Can a man carry management techniques into his personal life?

L.G.: Yes. The more a man recognizes that he can carry what he knows into his personal life, into the home and family, and into the volunteer organizations with which he works, the more he can accomplish. By using his professional knowledge to enrich citizen or volunteer activities, a man may feel that his own job is not so routine.

Q.: You're acquainted with the program that started at Johnson & Johnson of businessmen helping hospitals with problems of managing?

L.G.: Yes, I know that program very well. And you doubtless know that practically all S.A.M. chapters are available for this help. And you know, too, that the Bridgeport, Conn., chapter evaluated the jobs of all the city departments.

I think that one of the greatest satisfactions any organization can have is to tie in with volunteer activities of the community. Then, of course, the purchasing man might even help his wife.

(Continued on page 32)

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The Mainstream of Management

(Continued from page 31)
But do it very tactfully—and keep a sense of humor.

Q.: In your own work, have you seen people thrust into a manager's job and then not measure up?

L. G.: Yes, that's a good question. I think that what happens very often is that neither the qualifications demanded by the job—nor the qualifications of the man, have been very well studied. I've thought for many years that transfer and especially promotion have been very poorly handled.

Q.: Why?

L. G.: Because, in the first place, the top executive may be very strong in one field, but has supplemented himself wisely by people who have other qualities. Then suddenly, and perhaps without any preparation on his part, he is moved. And the man who has come in probably is very strong in some other quality. Neither he nor anybody else realizes that it's got to be a new team. If it isn't, the thing just simply can't work itself out.

Q.: Can you illustrate?

L. G.: Say a man has been in a position where he's been handling only one phase of a job. All of a sudden, he's promoted. If the new job is the same type as the old one, except that it is larger, he probably can make it. But if he's taken from one area and put into a new area, and neither he nor anybody else realizes it and nobody has tried to find out if he has capacity in that field or training in that field, nine times out of ten he fails.

Q.: Does this mean he has failed as a manager?

L. G.: No, it's not his fault. Instead of the company saying—"We made a mistake, and didn't study these people in the jobs," they are apt to say—"We overestimated John's capacity."

Before promoting someone there are two things to consider. One is what's good for the man and the other is what's good for the company.

Q.: In that connection, do you think perhaps that a specific background like engineering may be an obstacle for a manager?

L. G.: No, I don't agree on that. I think the concept of the engineer as a person who is a bit inflexible, and whose training has made him too objective is wrong. Up to rather recently industrial engineering training has been a broad one in engineering curriculum, plus human relations, social science, culture, and background.

Q.: Returning to the education field, do you feel there is something definite to suggest as education for general management?

L. G.: No. I don't think there is anything definite and to the point. This is perhaps the most challenging question we have. In the first place, I think we're dealing more and more with education, while training is something different. Education is something which comes always from within, which broadens our entire life and carries into everything. Training looks only at the job to be done.

In this whole problem of man-

agement, knowing what needs to be done where, and the kind of people it takes to do it, and how you define capacities, are all part of it. I can't say off-hand there is a definite formula, though reading management handbooks will help discover one.

Q.: Management, then, requires more than training?

L. G.: Yes. You must first have a person of wide interests, interested in the machines, the people, and the jobs. But at the same time he must have the dis-

cipline and training which make him buckle down in the specific situations to ask, "Why will this work?" He's got to concentrate on the case in point and bring in all his talents.

Q.: In regard to purchasing, have you seen it gain management stature?

L. G.: Yes, I have because I have watched it for many years with great interest.

As a child, both my father and mother were interested in what you did with your money, what values you got, and where you looked. I was gradually allowed to take over the household purchasing. In those days, it was cus-

tomary to charge at all the local stores. So I was allowed to carry silver dollars and gold pieces around in a little bag and pay all the bills. And in each case I got an orange or a cake or something else.

From this early interest, I have continued to keep my eye on industrial purchasing for almost 8 decades.

Q.: Do you really think that there are opportunities for purchasing to be more important?

L. G.: Yes, I do. If you look over the big advances in management, such as waste elimination during the war, purchasing is involved. The type of experience

received in purchasing is the kind that can be used in many wider areas.

Q.: Do you see any trends that will affect the future of the purchasing agent?

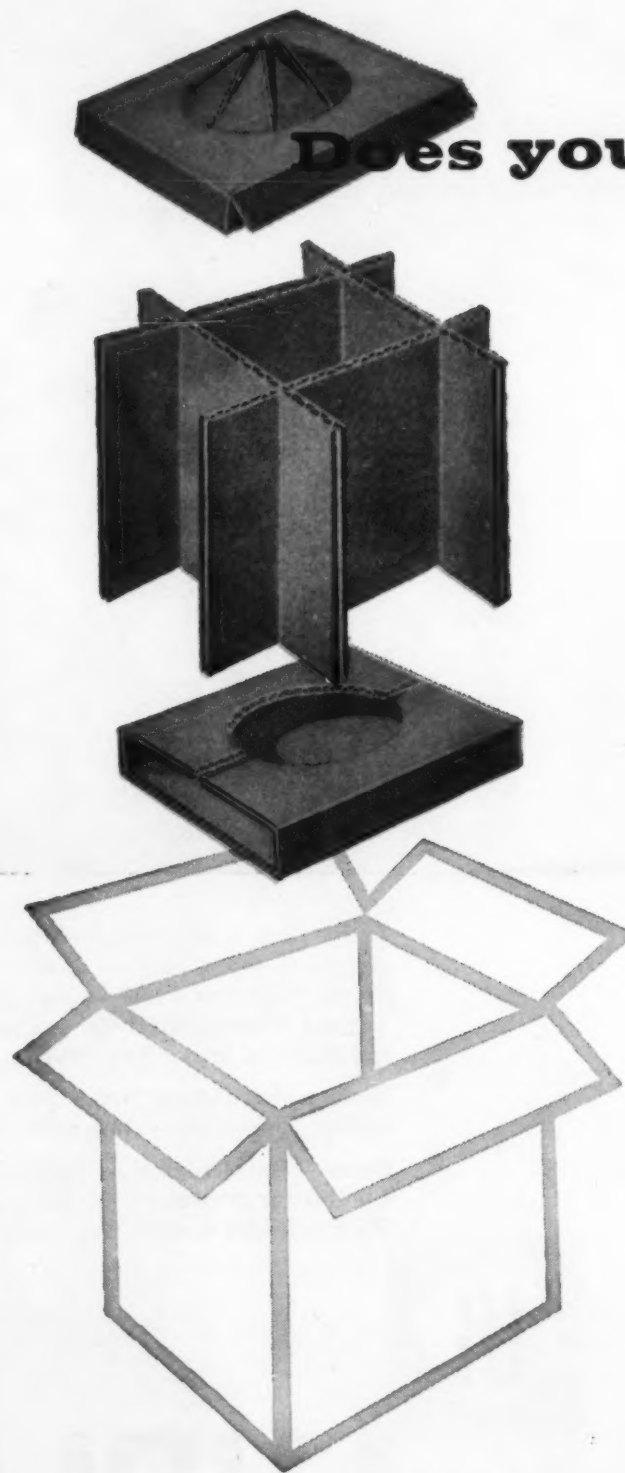
L. G.: Yes, two: foreign trade and automation.

More and more countries are recognizing the importance of purchasing. Increased interest in marketing in all 29 countries belonging to C.I.O.S. inevitably raise the questions of value and from whom to buy.

And the challenging future of automation indicates that the purchasing agent should prepare himself for a wider field.

What you should know about

Does your corrugated box



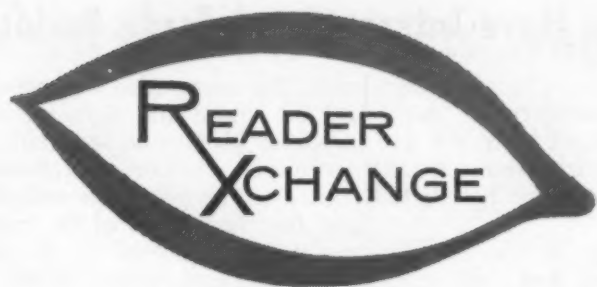
For most products, proper interior packing is one of the most important factors in corrugated container design. Through its careful selection you can often prevent a costly chain reaction of damage claims and rejected shipments.

How much and which types to use will depend primarily on your product, its construction, how it is normally handled and shipped as well as the type of protection needed. You may find, for example, that *anchoring* the contents is paramount. Some packing pieces are made expressly for this purpose. Others *cushion* against impact and vibration. Still others are used to *separate* packed units. A fourth group's primary job is to *suspend* the contents within the container.

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Using modular panels and reusable "quickie" clamps, Rocketdyne has reduced the number of requisitions and inventories of many box lines. The packing and handling system is used in shipments within and between Rocketdyne's three Southern California plants.

A study revealed that a single, small phase of the Division's manufacturing operations ordered special containers costing \$7,347 for material and labor in one three-month period alone to ship tools and parts to other departments and plants.

A reusable modular panel container system was suggested to receive maximum protection with container size flexibility and requiring minimum material inventory and storage. (Modular means panels sized so that ends for one box size can be used as sides on other boxes. Panels are interchangeable.) A total of 7,500 different container sizes can be produced from 325 different panel sizes.

The system offers these design features:

- An inventory of 48 different panels can be assembled into 259 different container sizes to handle 75 to 90% of in-plant packaging needs.
- Modular panels are assembled into containers with special spring clamps that do not damage them and permit their repeated re-use.
- Packaging requisition paperwork is zeroed.
- Packaging material is centrally inventoried at the main plant under control of shipping department and inventoried at the Division's other two plants.

2. A Book for Vendors Lists All Plant Facts

A time-saving idea from the procurement department at Bendix Aviation Corp:

Every supplier's representative is presented a booklet at the receptionist's desk as he arrives at the Mishawaka, Ind., plant.

The book quickly acquaints him with the personnel and policies he'll encounter at Bendix.

Division Director of Procurement Daniel J. Youngerman reports favorable comments from vendors who have received it.

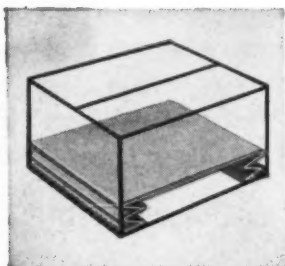
Remarkable for its completeness, the illustrated "Guide for Suppliers" brochure includes a guide map to the Mishawaka-South Bend area. Traveling instructions are outlined with detailed directions on how to get to the plant.

Other factual information includes:

- Business hours, and arrangements for interviewing various personnel.
- Procurement department policies.
- A directory of procurement personnel.
- Bendix-Missiles commitment policy.
- Methods used to select suppliers.
- Notes on TALOS, the navy missile Bendix built, and the military security regulations that must be observed.

interior packing for Union Boxes.

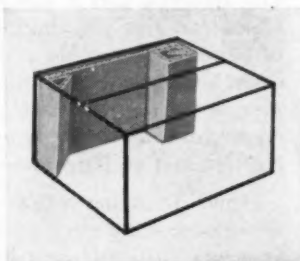
need an "innerspring mattress"?



packaged product and sets up harmonic resonance.

CORNER PIECES

These units "round off" the corners of the box's interior—provide extra protection at these vulnerable points. They cushion against crushing caused by improper stacking and impact resulting from humping or switching of freight cars, throwing, dropping and other shipping hazards that might squeeze or otherwise damage the contents.

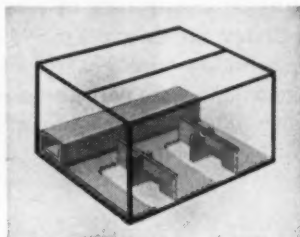


which can cause loosening of parts and actual breakage — particularly where it coincides with the natural frequency of the

DIE CUT SHEETS

Die cut inner packing comes in an almost limitless range of shapes, sizes, thicknesses. It can be made to perform practically any protective function. The pieces nearly always are tailored around the product—usually a fragile article, an item of irregular shape or one of unbalanced construction. Die cut inner packing is being used increasingly today because of the wide variety of items now shipped in corrugated containers.

Interior safeguards recommended or developed by Union-Camp are saving many companies thousands of dollars annually in packaging costs. Not to mention untold dollars that have been saved through the elimination of shipping damage. Whatever your product, your Union Box representative will be glad to work with you in determining the most efficient and economical approach to your particular packaging operation.



Write for free, informative booklet "Interior Packing of Corrugated Boxes"

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Sales Offices: Eastern Division — 1400 E. State Street, Trenton, N.J.
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Government Moves to Hold Down Residual Fuel Oil Prices This Fall

Washington—The federal government acted last week to discourage price increases for residual fuel oil during the coming heating season.

The Oil Import Administration, which acquired a price policing assignment last spring when the Administration imposed oil import curbs, said it would segregate figures on residual fuel imports and publish them separately each month, instead of including them in general import figures.

While there was no mention of price in the announcement, government oil specialists freely conceded the purpose of the new series.

Reasoning behind the residual statistics is this:

July figures showed that importers brought in less residual fuel oil than their allocations permitted. Imports during July into Districts 1-4 (the area east of the Rockies) were at the rate of 253,730 bbl. per day; this was well below the July 1-Dec. 31 "allowable" rate of 363,443 bbl. per day.

If this trend continues, importers won't be able to contend that mandatory oil import controls are causing a shortage of residual fuel oil, a type used mainly for industrial and institutional heating purposes. Thus any price hikes blamed on import controls will be scrutinized carefully by the Office of Civil and Defense Mobilization, the government's watchdog on oil prices.

Michigan Still Suffers From Debt-Itis, Waits For New Legislation

Lansing, Mich. — Michigan, with its new 4% sales tax and various other business levies, still hasn't solved State Purchasing Director J. Stanley Bien's big problem.

The state still has \$94 million in unpaid bills. Suppliers who have honored Bien's purchase orders for months knowing they had a long wait for payment will have to remain patient.

The Michigan legislature is due to reconvene Sept. 16 to hear new proposals on how to take care of obligations incurred since early this year. The \$128 million revenue program passed 10 days ago will go mostly for upcoming budget commitments.

The new tax program, among other things, increases the 6½ mill business activities tax by 1¼ mills, imposes a 4% tax on purchases of materials used in erecting federal buildings in Michigan, grants business activities tax exemptions for small business with less than \$25,000 annual gross, and allows other tax credits for low profit firms.

Aluminum Co. of Canada Closes Magnesium Plant

Montreal—Aluminum Co. of Canada announced last week it will close its magnesium plant but will continue to supply its customers by exchanging aluminum ingots for magnesium with Dow Chemical Co.

The Alcan magnesium plant in recent years has operated substantially below its 4,000-ton annual capacity. Most of its production was for world export markets.

A Dow Chemical division, Dow Metal Products Co., will utilize the aluminum obtained from Alcan in its fabrication operations. The magnesium-aluminum exchange between the two firms will be on a pro rata basis it was disclosed.

Timken Plans Production Of 'AP' Railroad Bearings

Columbus, Ohio—The Timken Roller Bearing Co. will build a new railroad-bearing production unit capable of equipping 20,000 freight cars with all purpose "AP" railroad bearings annually it was disclosed by a company spokesman.

The new unit will duplicate present production-line capacity and bring total output for the plant here to over 40,000 car sets a year. Company officials say the new line of railroad bearing will be in operation by fall of next year.

Chicago to Have International Trade Building

Chicago—The Chicago Association of Commerce & Industry has announced plans for \$15 million, 22-story international trade headquarters to be erected in this city.

The building, to rise on Chicago's Michigan Ave., will mark the city's emergence as a new world center of trade and transportation, acting as a clearing house for commerce between mid-America and the rest of the world it was stated by the building's planners.

Designed to house offices dealing with the export-import busi-

ness, the center also will provide exhibit space for manufactured products moving in international commerce. Import merchandise shows will be held semi-annually, and first two floors of the building will be devoted to displays and specialized exhibits in the export import field.

Promoters of the project, targeting May 1962 for completion of the building, said it was a natural outgrowth of St. Lawrence Seaway trade buildup and the Chicago International Trade Fair that was held here recently.

PERFOR

Number 1 reason why your best bargains

IN FLUORESCENT LAMPS, buying on price alone is no bargain at all. (Because the price of the lamps averages only 10% of your operating costs of light.) The other 90% goes for electricity and maintenance. Conclusion? The *best* lamp bargain works your lighting dollar the hardest, gives you the most *light* for your money.

How do G-E Fluorescents stack up? Take the popular 4-foot, 40-watt. The new General Electric PREMIUM 3 Lamp, announced in 1959, delivers more light per watt than any previous 4-foot fluorescents. As for maintenance—out of every 1,000 G-E 40-watt fluorescents you buy today, on the average 999 have no defect which can keep them from working—and 990 will still be burning late in 1961! Practically maintenance-free performance like this makes G-E 40-watt, slimline, high output and the exclusive Power Groove Lamps your best bargains in fluorescent light.



IN MERCURY LAMPS, you have the source which can give you the lowest cost of light of any type of lamp commercially available. Lower than filament—often lower, even, than fluorescent. And General Electric Mercury Lamps, at any given time in their life, will outperform any other brand the same age . . . and are built to last as long or longer!

How? To name a few—General Electric's dramatic new Bonus Line electrodes, better arc-tube design, and fewer parts to intercept light. And a new 1959 line of six G-E Bonus Line 400-watt Mercury Lamps are your biggest bargain in mercury light.

IN FILAMENT LAMPS there are some important differences between brands—some of which are detectable even *before* you put the lamp in a socket. Like the new 1959 smaller, brighter, 100-watt lamp bulb that's small as a 60-watter but delivers more initial light than two 60's. Or the new 1959 G-E Quartzline lamps that are pencil-thin but pack up to 1500 watts.

Or like the new 1959 RB-52 Bonus Line 1000-watt reflector lamp shown at right. Special bulge shape distributes heat, so a less-costly, regular glass is used—with savings passed on to you. And look! It uses General Electric's stand-up filament that delivers more light than ordinary "draped" type, has more expensive silver reflector instead of aluminum. It gives you 20-30% extra light on the work plane. Big things are happening in G-E Filament lamps—all pointing to a bigger bargain in filament light for you.

American Brass Grants Wage Hike High Cost of Missiles Spawns Remerger Plea

New York—American Brass Co. avoided a shutdown at its Ansonia, Conn., plant last week by granting a wage increase and benefit package estimated at 13.4¢ an hour.

The agreement covers nearly 3,000 members of the International Union of Mine, Mill, and Smelter Workers at Ansonia and Torrington, Conn., and Buffalo, N. Y. It provides for an increase of 7½¢ an hour retroactive to July 1 plus a security benefit plan and increased medical insurance coverage.

The contract was similar to

that which American Metal Climax Inc. agreed to two weeks ago in negotiations with the mine-mill union for its Cartaret, N. J. refinery, except that the American Metal contract provided for an additional 7¢ an hour increase next July whereas the American Brass contract contains a July 1, 1960 wage reopening clause.

American Brass, a subsidiary of Anaconda, had operated since the start of the current copper industry strike on a day-to-day contract extension with the Mine, Mill, and Smelter Workers.

Los Angeles—A congressional committee report denouncing the high cost of U. S. missile procurement and urging remerger of the Army and Air Force drew some qualified support from West Coast defense contractors last week.

Spokesmen for large prime and smaller subcontractors, while not necessarily going along with the service merger proposal, did agree that missile procurement programs "need cleaning up."

The House Government Operations Committee, headed by

Rep. Chet Holifield (D., Calif.), concluded a lengthy investigation into the organization and management of the missile program with recommendations that:

• The Army and Air Force merge into one military service to curb mounting weapon development costs.

• Thompson Ramo Woolridge's Space Technology Laboratories be converted into a non-profit organization under Air Force direction, similar to the Rand Corp.

A service merger, the commit-

tee said, would eliminate duplicating expenditure of funds for hardware research and procurement. But while criticizing procurement procedures generally, the Holifield report otherwise steered clear of any specific recommendations on procurement policy.

"There are no simple solutions to this question," a committee staffer told PURCHASING WEEK.

Missile contractors here echoed the charge that there has been a costly multiplicity of specifications. They complain that the Army and Air Force will order missiles that are almost the same—but not quite—resulting in high costs and innumerable inventory problems.

Smaller subcontractors were especially critical of procurement procedures causing cancellations, stretchouts, and cutbacks which they blame directly on interservice rivalry.

In complaining about procurement red tape, other missile industry spokesmen said flatly they would like to see some realignment of authority so that proposals can get fast action when they are submitted.

In the Space Technology Laboratory proposal, the Holifield committee said that "an unhealthy situation has developed" in the lab's role as Air Force contractor for technical direction of ballistic missile projects. It said "government and private business values have become intermingled to the detriment of both."

MANCE

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IF YOU'RE BUYING REPLACEMENT LAMPS or installing new lighting . . . it's easy to pick the General Electric Lamp that'll give you the *best bargain in light* . . . whether you use filament, fluorescent or mercury. Your best bet is to see your General Electric Large Lamp supplier. He'll help you pick the lamp type, size and "color" best for your particular application. Remember, General Electric Lamps are tops in performance—the best combination of light output, lamp life, reliability and color.



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Profitable Reading for Purchasing Agents

New Books

Financial Organization and Management. By Charles W. Gerstenberg. Published by Prentice-Hall Inc., Englewood Cliffs, N. J. 624 pages. Price: \$9.00

This complete up-to-date book is one of the best available guides to the financial organization and operation of the modern corporation. But its real value is in the approach which puts finance as the basic foundation behind the day-to-day functioning of the firm.

Every top purchasing executive will find that this somewhat unique approach will provide a new insight into the operations of his company. For the author develops the chapters on each financial function in the light of this basic premise.

From organization and capitalization to dividend policy and expansion, the author treats the reaction of the firm under each changing financial situation. And though a bit technical in scope, the P. A. with a good working knowledge of mathematics will most likely find this book valuable.

Some Monetary Problems—International and National. By Per Jacobsson. Published by Oxford University Press, 417 Fifth Ave., New York 16, N. Y. 374 pages. Price: \$6.75

The purchasing executive who operates within a firm that is a heavy importer or exporter, or which has foreign subsidiaries, will find this study an excellent refresher on costs, prices, and foreign exchange rates. And the book is written in such a way that the reader needs only a good basic understanding of mathematics and economics to appreciate its contents.

Basically, this is a collection of speeches and articles by the author, chairman of the executive board and managing director of the International Monetary Fund. Each chapter is closely connected to swings in general business activity, a prime concern of the author.

Seven basic conclusions are presented in the book, each based on Jacobsson's long experience in economics and finance. And every one will hit upon a particular business condition familiar to the reader.

International trade, financial relationships, and investment are also among those topics covered.

From the _____ Associations

Control Equipment

IC 1-1959. Price: \$6.00. Book covers rating, test and performance, manufacturing and application of the following types of control equipment: 1. Control devices—contactors, resistors, motor-starting switches, etc. 2. A-C general-purpose controllers—for induction motors, control centers, synchronous motors, etc. 3. D-C constant-voltage controllers—electronic D-C shunt motor controllers, machine-tool Class B, etc. 4. Definite-purpose controllers—steel-mill machinery, cab and floor-operated cranes, mine

hoists, refrigeration compressor units, etc. **National Electrical Manufacturers Association**, 155 E. 44th St., New York 17, N. Y.

Aids to _____ Purchasing Buying Heat Exchangers

This hard-cover book is a must for every P. A. who has a part

in the purchase of heat exchangers. It presents a series of designs standardizing every component in the exchanger. Book discusses all factors that must be considered in exchanger design and their interrelationship. Economics section shows how system conditions affect selection of the various components to get the cheapest design. It is possible to order a complete exchanger by specifying standard parts outlined in the

book. Available free by writing on company letterhead to **Patterson-Kelley Co., Inc.**, East Stroudsburg, Pa.

Ballast Application Guidebook

Price: \$5.00 GIZ-964. (100 pages) for P. A.'s dealing with the manufacture of lighting fixtures. Twelve application sections include a listing of recommended

ballasts and their performance characteristics. Also discusses effects of over and under voltage, radio interference suppression, ballast heating, etc. **General Electric, Ballast Department**, 1430 E. Fairchild St., Danville, Ill.

From the _____ Manufacturers Time Overcurrent Relays

Bulletin 5-050. Gives application and construction features for devices used to protect electrical equipment. Relay designs featured are inverse, very inverse, and extremely inverse. Also, tells



Information Bulletin

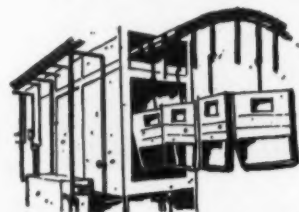
A REVIEW OF PHOSPHATE COATINGS Specified for the Protection of Metal Surfaces

By HUGH GEHMAN, Assistant Manager, Product Development Dept., AMCHEM PRODUCTS, INC.

Phosphate coatings are protective inorganic finishes that actually change the chemical nature of metal surfaces. The metal reacts with the applied phosphate solution to form a nonmetallic, crystalline coating which serves to:

- Improve paint adhesion
- Provide protection against corrosion
- Increase lubricity of friction surfaces
- Facilitate mechanical deformation of metals
- Decorate—in many instances

Satisfactory protection of steel, zinc and aluminum surfaces against corrosion, paint peeling and blistering,



Typical automotive spray installation.

and hard wear requires precision methods of chemical conversion coating.

Types of Conversion Coatings

There are seven classes of chemical conversion coatings commonly specified and used throughout industry today. They are as follows:

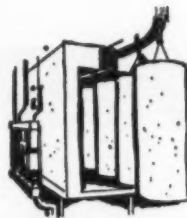
Zinc-iron phosphate (Amchem Granodine). This is the heaviest type of coating (gray in color) used for prepaint treatments on steel, iron and zinc surfaces. The process requires five or six operations: cleaning; rinsing; rust removal, if necessary; coating; rinsing; and a second rinse. Coating weight ranges from 100 to 600 mg per sq. ft.

Medium or large volume production of automobile bodies, appliances, projectiles and cabinets can be handled effectively.

The coating solution improves paint adhesion by forming a crystalline deposit over the metal surface. This deposit is rough, as revealed microscopically, and so offers an ideal gripping surface for paint particles.

Manganese-iron phosphate (Amchem Thermoil-Granodine). This is a heavy black coating used on friction surfaces to prevent galling, scoring and seizing of parts. Typical

metal parts treated are pistons, piston rings, gears, cylinder liners, camshafts, tappets and various small arms components.



Typical appliance treatment line.

Iron phosphate (Amchem Duridine). This is a comparatively new process that places a light coating on surfaces for improved paint adhesion. Since cleaning and coating occur in the same bath, it has only three to five stages.

The iron phosphate treatment is a spray process suited for medium to large volume, large or small work. Precleaning is normally unnecessary, an economy factor in its favor.

Products protected by this process are steel or iron fabricated units, such as cabinets, washing machines and refrigerators. Weight of coating is 50 to 100 mg per sq. ft.

Zinc phosphate (Amchem Lithoform). This is a crystalline coating produced on galvanized iron and other zinc surfaces—also cadmium—for improving paint adhesion. The purpose of the coating is to provide a paint-gripping surface and to prevent the reaction between acidic components of the paint and the zinc metal, with the formation of soaps and loss of paint adhesion.

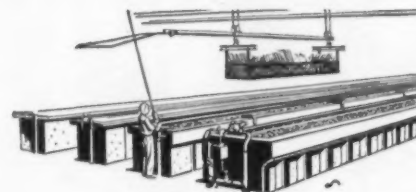
This coating is applied in weights of 75 to 500 mg per sq. ft. There are no limitations on volume or production or on size of products treated. Zinc phosphate coating is used on zinc alloy die castings, zinc or cadmium plated sheet or components, hot dip galvanized stock, and Galvaneal.



AMCHEM PRODUCTS, INC. (Formerly American Chemical Paint Co.)

AMBLER 36, PA. • Detroit, Mich., St. Joseph, Mo., Niles, Calif., Windsor, Ont. Amchem, Granodine, Thermoil-Granodine, Duridine, Lithoform, Alodine, Permadiene and Granodraw are registered trademarks of Amchem Products, Inc.

Amorphous phosphate (Amchem Alodine). This a protective coating for aluminum and aluminum alloys.

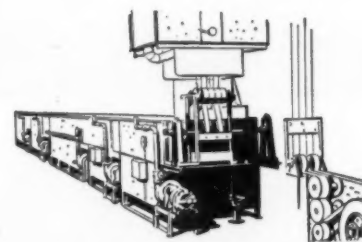


Typical aircraft dip installation.

It may be used in place of anodic deposition for improved paint adhesion and corrosion resistance.

This coating is practical for production in any volume. Coating weight is 100 to 600 mg per sq. ft. Products treated include aluminum awnings, doors and windows, aircraft and aircraft parts, missile parts, roofing and siding. Particularly good when aluminum is painted prior to forming.

Zinc-iron phosphate for oil absorption (Amchem Permadiene). This is a relatively heavy coating adapted to the retention of rust-inhibiting drying or nondrying oils and waxes on ferrous metal surfaces. The coating is applied to a weight of 1000 to 4000 mg per sq. ft.



Typical continuous strip line installation.

The process is satisfactory for large or small work in any volume—nuts, bolts, hardware, guns, tools, etc.

Zinc-iron phosphate for metal forming (Amchem Granodraw). This is a specialized coating used in conjunction with a suitable lubricant to facilitate the cold mechanical deformation of steel. The coating acts as an anchor for the lubricant throughout drawing, extrusion, and cold forming operations.

It is a successful treatment for products such as blanks and shells for cold forming, heavy stampings, impact extruded shapes, drawn wire and tube.

For more complete information about any one or all of these chemical conversion coatings, contact an Amchem sales representative or write us at Ambler 36, Pa.

how to calculate relay settings and determine what particular design best suits individual requirements. *Federal Pacific Electric Co.*, 50 Paris St., Newark 1, N. J.

Power Switching Centers

Bulletin G-1616-A. (20 pages) Describes power switching centers that are said to provide economy and flexibility through novel building block design. Bulletin covers HPL-C interrupter switches and Tog-L-Snap, which closes and opens the switch independent of operating handle speed for safer operation. *I-T-E Circuit Breaker Co.*, 1900 Hamilton St., Philadelphia 30, Pa.

"Handbook of Hydrostatic Instrumentation"

(88 pages) Gives information on the principles of hydrostatic measurement, design of panel systems, installation of instruments, engineering data, etc. Describes Petrometer's complete line of instruments. *Petrometer Corp.*, 43-22 Tenth St., Long Island City 1, N. Y.

Gas Regulators

Describes complete Beam line of LP-gas and natural gas regulators. Horsepower ranges from 2 to 500. Gives detailed specifications and applications. *Beam Products Mfg. Co.*, Los Angeles, Calif.

Subminiature Toggle Switches

Bulletin No. 53T-1. Describes Haydon 5300 series toggle-actuated switches. Switch assemblies are available from 1 to 8 pole, double-throw contact arrangements, and can be furnished with either standard or panel sealings. *Haydon Switch, Inc.*, Waterbury 20, Conn.

Tube Fittings

Covers Lenz Co.'s complete line of tube fittings. Gives information on prices, distributors, how to order, specifications, etc. Contains "O-Ring" seal hydraulic tube fittings, straight thread fittings, hydraulic accessories, etc. *Lenz Co.*, Dept. 126-A, 3301 Klepinger Rd., Dayton 16, Ohio.

"Instrumentation and Control"

Lists Hays' instruments according to the five major process variables (pressure, flow, temperature, level and gas analysis) plus receivers, electrical combustion control systems, etc. *Hays Corp.*, Michigan City, Ind.

Thermocouples

Catalog EN-S2. (50 pages) Describes standard assemblies in protecting tubes and wells for general applications, specialized thermocouples, replacement elements, extension leadwires, etc. It also gives recommendations on the choice and use of thermocouples and assemblies. *Leeds & Northrup Co.*, 4934 Stenton Avenue, Philadelphia 44, Pa.

Metal Surface Processing

(40 pages) Covers machinery and machinery systems for metal surface processing (cleaning, drying, spraying, etc.). Includes in-

formation on foundry mills, ultrasonic cleaning equipment, large capacity barrel finishing equipment, etc. Gives index listing of Ransohoff engineered equipment for surface treatment of metals. *Ransohoff Co.*, Hamilton, Ohio.

Polystyrene Sheet and Film

Portfolio contains samples, descriptions, and price lists of the Plax Corporation's complete line of polystyrene sheet and film. It is non-toxic, odorless, tasteless, waterproof, greaseproof and is said to be ideal for overwraps, formed containers, carton windows, bags, etc. *Plax Corp.*, P. O. Box 1019, Hartford, Conn.

Heat Exchanger Tube Alloys

(8 pages) Outlines principal features, technical information and specification for heat exchanger tube alloys for use in the power, petrochemical, marine and related fields. Lists district sales offices and stock depots. *Scovill Mfg Co., Mills Division*, 99 Mill St., Waterbury 20, Conn.

Electromagnetic Clutches

(20 pages) Provides information on electromagnetic clutches with torque capacities from 1.8 through 13,000 lb.-ft. Applications include grinders, drill presses, boring mills, etc. Bulle-

tin gives dimensions, torque ratings, speeds and prices. *I-T-E Circuit Breaker Co.*, 1900 Hamilton St., Philadelphia 30, Pa.

Straight Side Presses

Bulletin 5-B. Contains information on KRW straight side, single action, hydraulic press line which includes 25 through 1,000-ton models. Describes construction manuals, and electric controls, accessories, etc. *K. R. Wilson, Inc.*, Arcade, N. Y.

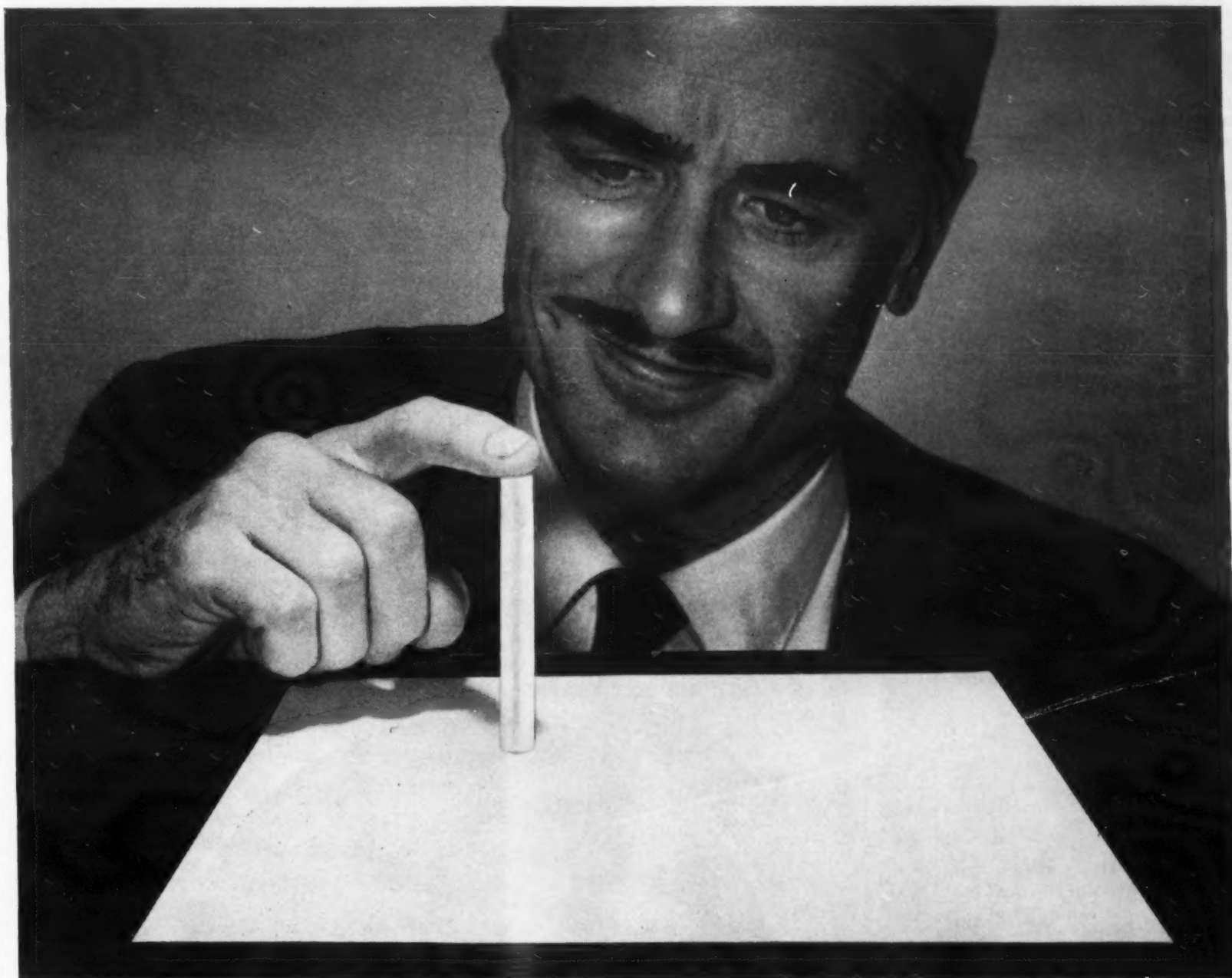
Production Control

H-201. Tells how "Telecontrol" controls plant supervision

and production activities from a central location. Gives attained results of installation in plastics processing, electrical manufacturing, and appliances. *Hancock Industries, Inc.*, 2137 Book Building, Detroit 26, Mich.

Variable Transformers Bulletin P559

Describes 2 KVA series transformers that feature zero waveform distortion and a rhodium-plated commutator surface. Terminals accommodate push-on connectors, lug, wrap-around or soldered connections. *Superior Electric Co.*, Dept. 126, Bristol, Conn.



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Springhill Bond comes in pull-tape junior cartons—polyethylene-lined to control humidity.

Fine Paper Division **INTERNATIONAL PAPER** New York 17, N. Y.

Bustling Technology Comes Up with Surprises

Cheaper Titanium May Be on the Way, And—Steel with New Skin, Gold from King Neptune

New York—Today's technology is demanding new materials as never before. Producers are hard at work meeting this new demand. Here is a sampling of what they are now offering purchasers:

• **Metal powder-lead alloys** combine the properties of lead (corrosion and radiation resistance) with the properties of other metals (strength, heat resistance, etc.) The alloys are made by mixing treated metal powders with molten lead. Research shows that cobalt, copper, iron, molybdenum, nickel and tungsten powders are particularly well suited for the new alloys. (Battelle Memorial Institute)

• **Cheaper titanium may be on the way.** A new electrolytic process makes ductile titanium with higher purity and possibly lower cost. Cheap titanium carbide forms the anode of an electrolytic cell; 99.6% pure titanium crystallizes on the cathode. The same process can be used to make pure crystals of other metals like tantalum, hafnium, or columbium. (Norton Co.)

• **Alumina refractory material** handles like a plastic refractory yet withstands 3,200 F. Called Pitco 80, the material combines all of the advantages of monolithic construction, formerly available only in castable and ramming mixes, with the advantages of plastic construction. It is air and gas tight and has good thermal shock resistance. The alumina-plastics refractory is expected to be used as a lining material in aluminum reverberatory and electric furnaces. Other expected uses: burner blocks, desulfurizing forehearth, holding ladles, and boiler target walls. (H. K. Porter Co., Inc., Refractories Div.)

• **Titanium-clad steel plate** provides a chemical resistant material at a price below \$3 per lb. compared with \$8 or more per lb. for solid titanium plate. Gages and plate sizes are available in the clad form which are not standard in solid titanium plate. Largest plate size practical as of now contains a 20% clad, is 135 in. long by 49½ in. wide by 1½ in. thick.

Normally cores are low-chromium, low-molybdenum alloy. Materials such as ASTM A-202, A-204, A-387B, and A-387C have been used.

Hot-formed into vessel heads,

the titanium-clad steel tested out with an average shear strength of 27,000 psi.

Tests of different heads using various alloy bases showed shear strength ranging from 23,500 psi. to 44,800 psi. It is expected that the availability of titanium in this form, together with the lower cost, will markedly improve the market for this metal. (Lukens Steel Corp.)

• **Aluminum-coated steel strip** may result from research now being conducted on continuous vacuum metallizing. Strip presently contemplated would be comparable to tinplate, coating thickness being about 0.030 mil. Strip could pay off as a less expensive substitute for tin plate for certain containers. (Republic Steel Corp.)

• **Two new polyethylene compounds** eliminate dust attraction by injection molded articles. Previous poly compounds built up a static electricity charge, at-

tracted dust. The new polyethylenes dissipate the charge of electricity.

The new materials are designated Bakelite polyethylene DNDA-0401 and DPD-7366. They possess all the properties of high-quality polyethylene housewares compounds. DPD-7366 is based on a new polyethylene copolymer (see P.W. June 15, '59, p. 43). DNDA-0401 is a high-flow general-purpose anti-dust housewares material with less rigidity than DPD-7366. (Union Carbide Plastics Co.)

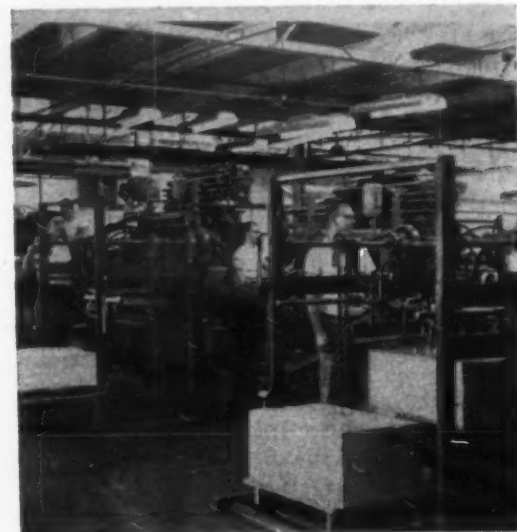
A low-cost method of recovering metals from sea water is a distinct possibility. Armour & Co. has filed patent rights describing

a process developed by a South African professor.

It's called the "soap and bubble" method. Here's how it works: Selected soaps, or soap-like materials, "chase" minerals to the surface when bubbles are blown through the water. Developer says it should be possible to get 600 tons of aluminum, 2 tons of uranium, or 240 oz. of gold daily from the sea. Which mineral are chased to the surface depends on what kind of soap is used.

A small sea area could be fenced off. Pipe laid on the ocean floor would provide the bubbles. A skimmer or collector would move the frothed minerals.

Ohio Art pressmen are busily lithographing Youngstown Black Plate that will be subsequently blanked and formed to produce their line of educational World Globes.



Accent on Excellence

Youngstown black plate



KID TESTED TOYS



This attractive World Globe—an all-time best seller to homes with growing children—is produced by 50-year-old Ohio Art Company of Bryan, Ohio.

These Globes are of durable metal construction and lithographed in striking full colors. The raw material used? Why Youngstown's Black Plate, of course. It's a quality steel that Ohio Art has found lithographs, draws, forms and blanks to perfection—helps keep the quality of their products at a high level.

Wherever steel becomes a part of things you make, the high standards of Youngstown quality, the personal touch in Youngstown service will help you create products with an "accent on excellence".



Youngstown
Youngstown, Ohio

THE YOUNGSTOWN SHEET AND TUBE COMPANY

Carbon, Alloy and Incoloy Steel

Johnson & Johnson P.A.'s Mull Problems at Session

Haddonfield, N. J.—Some 50 purchasing agents at Johnson & Johnson and its affiliate companies will hold their sixth annual conference Oct. 8-9 at the Cherry Hill Inn here.

Conference chairman John S. Babily of J&J's Permacel Division in New Brunswick, N. J., said the two-day meeting will include discussion by prominent persons on subjects pertinent to purchasing, as well as group discussion sessions.

This Changing Purchasing Profession . . .

William F. Gother has been promoted to purchasing agent at the **Oilgear Co.**, Milwaukee. **Karl F. Kattner** continues as general assistant purchasing agent. **Norman C. Harenburg**, general machine shop foreman, has been made assistant purchasing agent and assigned Gother's former duties, directing purchase of Oilgear patterns and castings.



W. F. GOTHER

Robert F. Marcy has been transferred to west Los Angeles as manager of purchases for the **Missile Development Laboratory, Aeronautical Division, Minneapolis-Honeywell Regulator Co.** **Eugene A. Zierhut**, a subsystems procure-

ment buyer, succeeds Marcy as purchasing agent in charge of the subsystems procurement section, procurement department, the Aeronautical Division's Minneapolis facility.

Donald H. Kattman has been appointed manager of purchases, **Phosphorus Division, Hooker Chemical Corp.**, Jeffersonville, Ind. The past year he has served as assistant purchasing agent for the firm's Niagara Falls plant and the **Durez Plastics Division**. He joined the company's purchasing department as a buyer in 1955 when he was transferred from **Niagara Alkali Co.** following merger of that company into Hooker.



D. H. KATTMAN

Edwards H. Parks has been promoted to general purchasing agent for **Continental Electric Equipment Co.**, Cincinnati. He had been chief of the engineering staff at the firm's Ludlow, Ky., plant.



E. H. PARKS



R. W. CARBARY

Robert W. Carbary has been promoted to director of purchasing for all plants of the **Holley Carburetor Co.**, Detroit. With the company 20 years, he served as materials control manager and buyer the last five years.

Donald A. Monro, director of purchases for **Standard Oil Co.** (Indiana), Chicago, since 1956, has been appointed administrator of **Societe Civile Amoco**, the firm's foreign market planning office in Paris. **Charles F. Smith**, manager of the planning division of the company's manufacturing department in Chicago, succeeds Monro as director of purchases.

Carlisle Knowlton has been assigned the new post of general office purchasing agent by **Champion Paper & Fibre Co.**, Hamilton, Ohio. Knowlton joined the company in 1955 in management planning and became a buyer in the general office purchasing department in 1958.

J. Milton Connors, traffic manager, **Tidewater Oil Co.**, San Francisco, has been named purchasing manager in the West.

William G. Gillham, purchasing agent at Portland, Ore., for **Owens-Illinois Glass Co.**, has been transferred to the firm's Bridgeton, N. J., plant. **Delmar R. Roses** succeeds him at Portland.

John C. Rice, assistant vice president of **Tobin Packing Co.**, Albany, N. Y., has been made director of purchasing and packaging for all the firm's plants.

Loren F. Gay, assistant to the plant manager, has been promoted to manager of purchases at the **Westinghouse Co.'s** meter plant, Raleigh, N. C.

H. Maynard Gage has been advanced from assistant to director of purchases, **Columbia-Geneva Division, United States Steel Co.**, San Francisco, to assistant director of purchases.

Irving S. Boulton has been made director of purchases for the **Oliver Corp.**, Chicago. Formerly assistant manager of the firm's South Bend, Ind., plant, he will report to **L. P. Richie**, vice president, who has been in charge of both purchasing and manufacturing. Boulton had previously served as manager of the South Bend Plant No. 2, the operation of which was discontinued about a year ago. He also held assignments in purchasing, sales, and manufacturing operations in South Bend.



I. S. BOULTON

Glenn N. Hackett has been assigned the new post of director of purchases and traffic, **Thompson Ramo Wooldridge, Inc.**, Cleveland. He served in a similar capacity on the corporate staff of **Thompson Products, Inc.** prior to the merger with the **Ramo-Wooldridge Corp.** Hackett is a past president of the **Purchasing Agents Association of Cleveland** and has served as a national director.

Stewart G. Wackel has joined **Bradley Semiconductor Corp.**, New Haven, Conn., as chief purchasing agent. He had been with **Safety Industries**, Hamden, Conn.

James M. McTavish has joined **Commonwealth Services, Inc.**, New York, as general purchasing agent. He succeeds **J. G. Shanley** who retired July 31 after 26 years' service with the firm and its predecessor companies. McTavish had been division purchasing agent for the **Atomic Energy Division, Sylvania Electric Products, Inc.**, Bayside, Long Island, N. Y.



J. M. MCTAVISH

Perry V. Ogden has been appointed manager of materiel, **Summers Gyroscope Co.**, Santa Monica, Calif. He will be responsible for purchasing and materiel control functions. He served as manager of materiel for the **Convair-Pomona Division of General Dynamics Corp.** from 1952 to 1957.

Milton W. Gunkle has been named director of purchases for the **Triangle Conduit & Cable Co., Inc.**, New Brunswick, N. J.

Jim Hillier succeeds **Percy Funk**, who retired, as purchasing agent for the **Simpson Logging Co.**, Shelton, Wash. Hillier had been assistant purchasing agent.

Charles V. Pearce has resigned as purchasing agent, **J. E. Haseltine & Co.**, Portland, Ore., to join the purchasing department of **Iron Fireman Mfg. Co.**, Portland. He is a former president of the **Purchasing Agents' Association of Oregon**.

Jacob I. Fisher, production controls manager, **Riegel Paper Corp.**, has been assigned the new post of divisional purchasing agent, **Specialty Products Division**. **Harry Singley, Jr.**, formerly acting purchasing agent, has been named purchasing agent for the paper mills in New Jersey. Both will continue to make their offices in the Milford, N. J., mill.

John A. Muszer has been promoted from assistant director of purchases to director of purchases, **Place Homes, Inc.**, South Bend.

Obituaries

Wilfred C. Stephens, 59, city purchasing agent, **Niagara Falls, N. Y.**, died Aug. 11. He was a former vice president of the **Niagara Falls Power Co.**

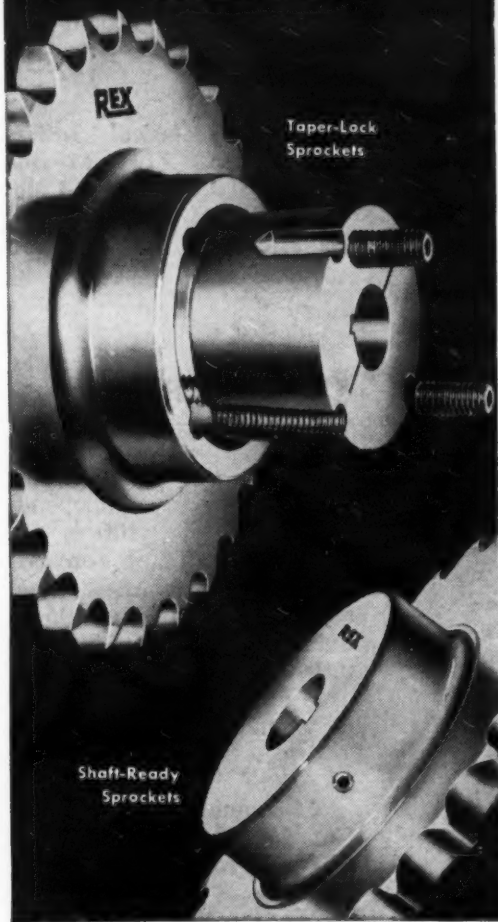
C. P. Altland, 64, manager of purchases for **Southern California Edison Co.**, Los Angeles, died Aug. 15. He had served in his present post the last 10 years and had been with the firm 40 years.

Howard W. Bowen, 75, retired purchasing agent for the **United Engineers & Constructors, Inc.**, died Aug. 17 in Camden, N. J.

Tracey E. Lloyd, 65, a past president of the **Canadian Association of Purchasing Agents**, died at his home in Toronto, Ontario, Aug. 17. He was vice president and a director of **Hinde & Dauch Paper Co. of Canada Ltd.**

Another PLUS value...

SAVE
TIME...
MONEY



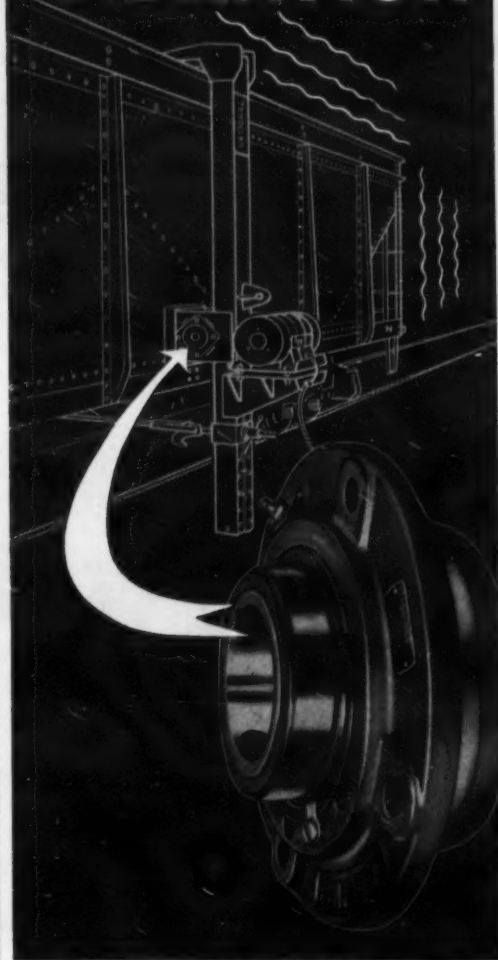
Rex Taper-Lock and Shaft-Ready Stock Sprockets can save you both time and money. MONEY because no boring, keyway or setscrew machining is required. TIME because they're ready on the shelf...no waiting for machining. Taper-Lock Sprocket and Bushing are easy to assemble and disassemble on the shaft. Shaft-Ready Sprockets, furnished complete with keyway, setscrew and finished bore, are lower in cost than any other type of sprocket. Complete range of sizes available.

See Your Rex Distributor or Write CHAIN BELT CO., 4702 W. Greenfield Ave., Milwaukee 1, Wis.

REX
SPROCKETS

Another PLUS value...

BUILT TO TAKE
VIBRATION



Even under car-shaker vibration that loosens tons of coal, Shafer Bearings keep their steel grip on longer life.

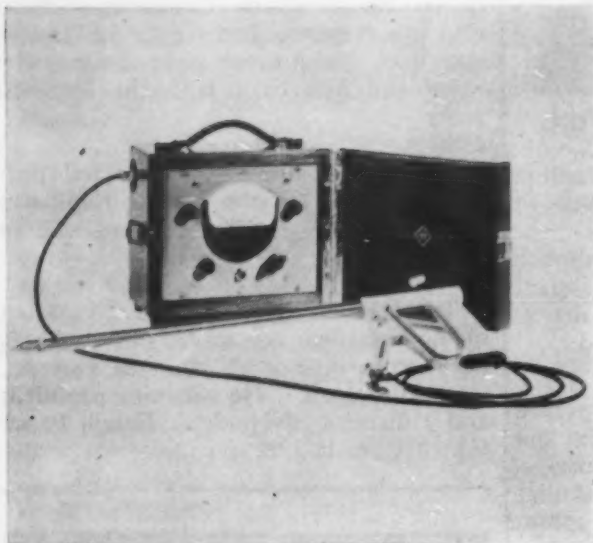
This reserve stamina stems from exclusive bearing design and precision construction. Concave rollers matched to convex raceways are of highly elastic, case-hardened alloy steel. With every shock, rollers compress, increasing bearing surfaces.

Even under misalignment, Shafer Bearings roll safely with the punch. See your nearby distributor or write Chain Belt Co., 4702 W. Greenfield Ave., Milwaukee 1, Wis.

SHAFAER
SELF-ALIGNING
ROLLER BEARINGS

**This Page is Devoted to a Round-Up
of New Electronic Components**

Here's your weekly guide to...



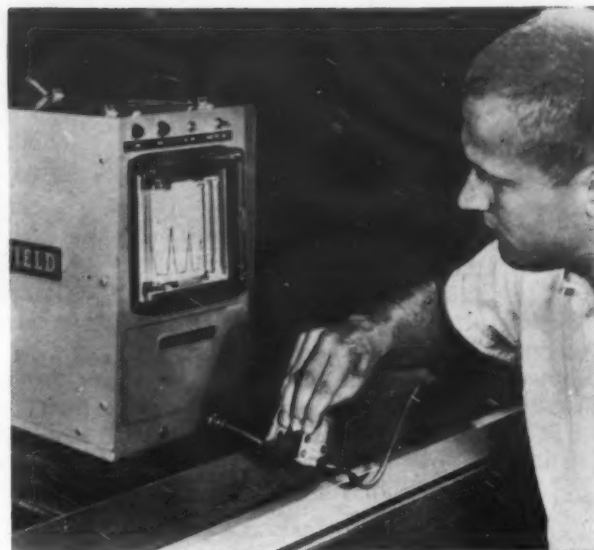
Moisture Meter

Direct Reading Scale

Electronic moisture meter is small, portable unit calibrated in 3 scales between 6-36% direct reading. It is designed for reading the moisture content of baled hops. Pistol grip probe is connected to the instrument by a 6-ft. detachable cable.

Price: \$265. Delivery: 60 days.

Mid-Eastern Electronics, Inc., 32 Commerce St., Springfield, N. J. (P.W., 9/14/59)



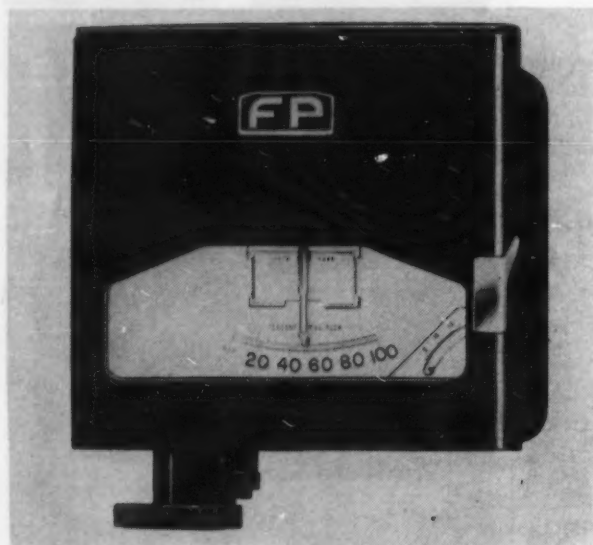
Thickness Gage

Draws Profile of Sheet

Pneumatic gage recorder automatically measures thickness of a sheet of steel, aluminum, plastic, etc., and plots the size deviation on a 4-in. wide strip chart. Full scale tolerance ranges from $\pm .0003$ to $\pm .40$ with proper tooling.

Price: \$695 (less tooling). Delivery: 8 wk.

The Sheffield Corp., Dayton, Ohio (P.W., 9/14/59)



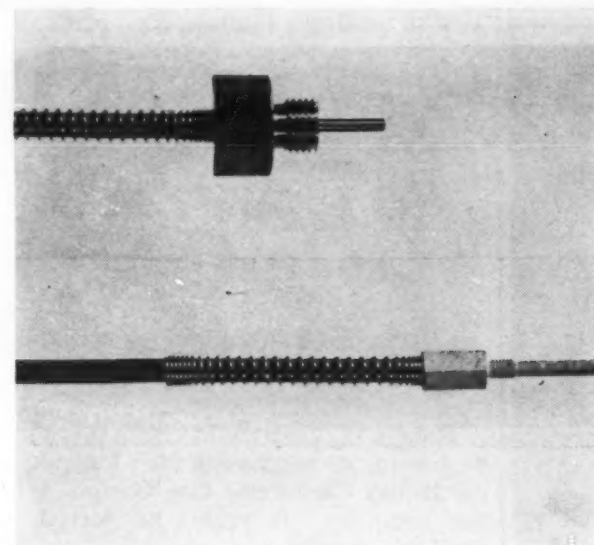
Transducer

Changes Motion to DC

Fully transistorized instruments converts motion to d.c. signals. It takes motion outputs from flow, pressure, temperature and level gages and changes them into signals compatible with all miniature electronic instruments. Printed circuit board permits changing circuit.

Price: \$370. Delivery: 12 wk.

Fischer & Porter Co., 142 Jacksonville Rd., Hatboro, Pa. (P.W., 9/14/59)



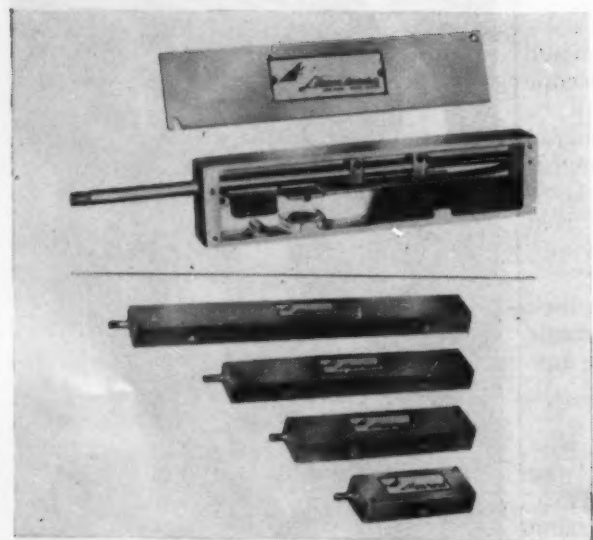
Transducer

Offer Weight Savings

Tungsten resistance thermometer weighs only 2 oz. Units possess high accuracy and have temperature range characteristic from -450 F to $+2,000$ F. They feature body rotation independent of leads for ease of installation and can withstand high shock.

Price: \$150 to \$175. Delivery: 30 days.

Astra Technical Instrument Corp., 1132 Mission St., S. Pasadena, Calif. (P.W., 9/14/59)



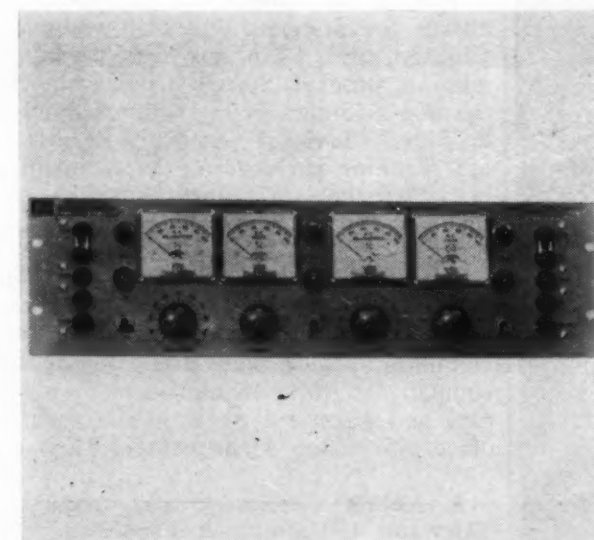
Switching Unit

Cuts Control Costs

Standardized electro-mechanical units are designed for electrical control of linear machine movements. Two two-circuit double-break snap switches are operated by adjustable cams mounted on heavy-walled sliding actuator tube coupled to air cylinder.

Price: \$26.75 (0-4-in. stroke) to \$39.75 (0-24-in. stroke). Delivery: immediate.

Linear Controls Co., Skokie, Ill. (P.W., 9/14/59)



Power Supply

Gives 2 Sources

Power supply (Model 2-21A) gives two independent sources of 0-100 v. d.c. at 0-100 milliamp. on one rack mounted chassis. Load regulation is 0.1% or 0.05 v., line regulation 0.15% or 0.05 v. Two outputs can be used independently, in parallel, or in series.

Price: \$258. Delivery: 2 wk.

Electronic Measurements Co., Inc., Eatontown, N. J. (P.W., 9/14/59)

Purchasing Week Definition

Electronic Components

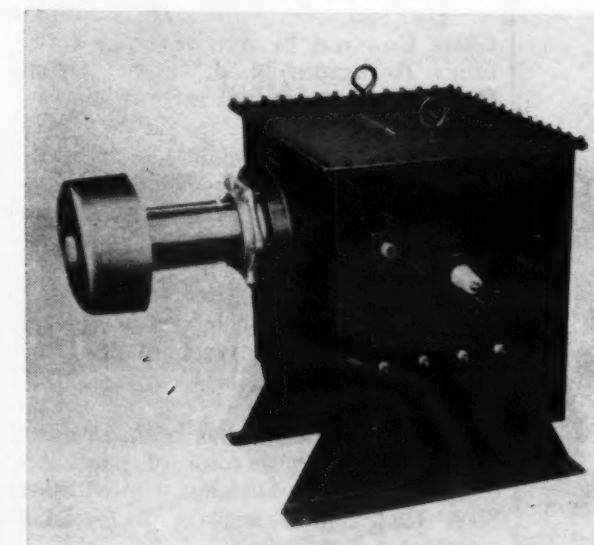
Power Supply—An electronic unit that supplies electric power of a definite magnitude to other electronic components or measuring instrument. The supply may be fixed at one magnitude or adjustable through a range of values. The power supply receives its electricity from a standard power source such as 110 v.

Voltage Regulator—An electronic device that keeps the line voltage being supplied to electric or electronic machinery within certain predetermined values. Usually used when extreme voltage deviations would damage the equip-

ment of destroy the accuracy of the measurements.

Transducer—A device actuated by power from one system and supplies a different type of power to another system. In measurement systems a transducer is actuated by a mechanical (water flowing through a pipe) or physical (changes in temperature) force which it changes into electrical energy which can be read on a meter.

Thermocouple—A specialized form of transducer that changes differences in temperature into electric energy which can be read on a meter. (P.W., 9/14/59)



Pulse Transformer

High Power Unit

Pulse transformer operates transmitting tube at 100 kv. with 10 amp. filament power supply. Case contains bifilar choke for overload protection and unit has shielded built-in current viewing transformer. Peak power output is 32 milliwatts at 100 kv.

Price: Approx. \$1,300. Delivery: 8-10 wk.

Stavid Engineering, Inc., Plainfield, N. J. (P.W., 9/14/59)

New Products

Another PURCHASING WEEK service: Price and delivery data with each product description.

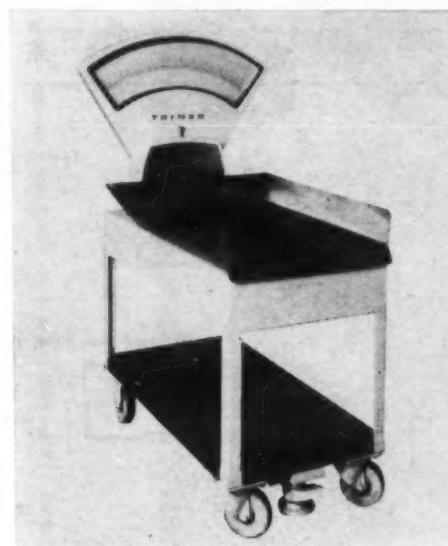


24 hr. Clock

Seconds Graduated to .02

Custom designed 24 hr. clock has split seconds graduated to .02. Torque required to drive the clock is low and timing motors may be of the miniature series in 115 v., 50, 60, 400, and 500 cycles. Preset of hours and minutes is made by means of a 12 v. d.c. high speed motor actuated by a push button. The split seconds are set by a manual reset knob. The instrument glass window has a center hair line.

Price: From \$88. Delivery: 4-6 wk.
Haydon Instrument Co., Box 991,
Waterbury, Conn. (P.W., 9/14/59)

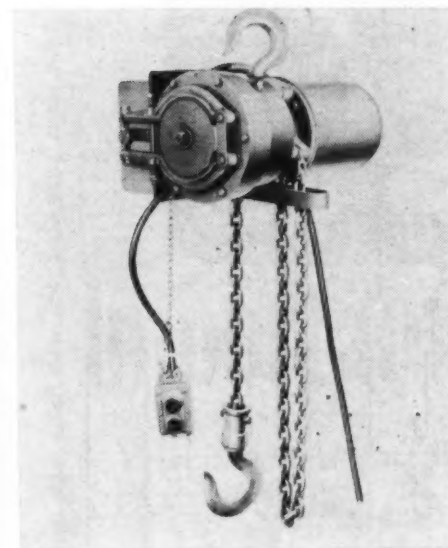


Scale

Can Be Rolled to Any Location

Scale can be rolled to any desired location and then locked in position by means of a foot pedal. Checking and weighing can be done in one operation of the stainless steel tray. For greater flexibility the tray is removable. The scale has a capacity of 220 lb. with a 30-lb. tare. It was designed for use in a variety of industrial applications.

Price: \$685. Delivery: 30 days.
Trainer Scale & Mfg. Co., 2714 West
21st St., Chicago, Ill. (P.W., 9/14/59)



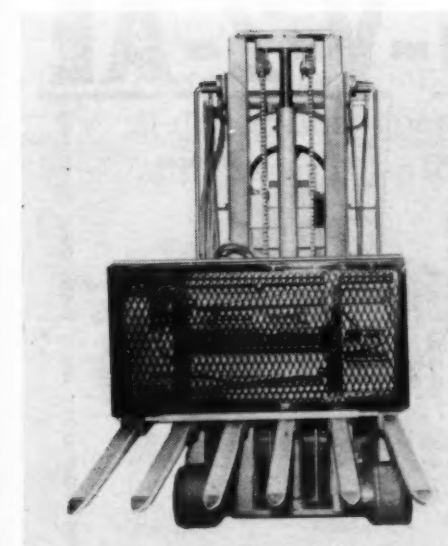
Electric Hoists

Have Push-Button Control

Electric hoists are designed for rugged continuous service. Capacities of 12 models range from 1/2 to 3 tons and speeds range from 9-36 fpm. Hoist comes with push-button as well as pendant control. Totally enclosed gear housing eliminates damage through grease leakage and is packaged with grease designed to last the lifetime of the hoist. Available with either hook or multi-purpose lug.

Price: From \$200. Delivery: immediate.

Coffing Hoist Div., Duff-Norton Co.,
Danville, Ill. (P.W., 9/14/59)



Industrial Truck Attachment

Pushes Material Off Pallet

Attachment is specifically designed for "take-it or leave-it" pallet system. In this process unit loads are handled and stored on pallets but shipped without them. Loads are handled in conventional manner on pallets. When loading carriers, the forks are slid between the stringers on top of pallet and the load raised off. The load is moved to the carrier and pushed off the forks.

Price: Multiple forks \$395, side shifter \$635, Push-off \$950. Delivery: 10 wk.

Lewis-Shepard Products, Inc., 125
Walnut St., Watertown, Mass. (P.W.,
9/14/59)

September 14-20

Product Perspective

Of Isotopes and Industry

● **Groundless fears seem to be slowing industry acceptance of radioactive materials.** Companies that developed industrial uses for low energy radioisotopes expected manufacturers to get over the fears that have been attached to the term "radioactive" ever since the first bomb blast. But recent political squabbles and bomb talk has more than offset any advantage won by educating industry to the advantages of using radioisotope instruments.

● **One company tells this story:** A Midwestern refinery installed a radioisotope level control on the top of one of its refinery tanks. The control indicated when the tank was full—much the same way it is conventionally done by a floating ball. But the radioisotope gage has no moving parts.

A sign posted next to the control stated that nobody should spend more than 25 hr. a week in the spot. Since the tank was 60 ft. off the ground the odds on anyone spending 25 min. a week there were pretty slim—but since a danger of a sort existed the sign was justified. What did the maintenance men in the area think about the sign? When they had to cross the tank—past the control—they walked down a ladder, 60 ft. to the ground and climbed another 60 ft. ladder on the other side to get back up. The radioactivity given off by the gage was about the same as that emitted by a radium dial wristwatch.

● The control on the tank used a relatively low level energy source. The highest source used in commercial controls gives off about 100 milli-roentgens an hour. These sources are completely shielded and it would be almost impossible for a worker to get into the direct path of the source. If he did, and he stayed there for a week, he would get about as much exposure as he would receive from an X-ray.

Nucleonic experts are quick to point out that there is a danger present, but they claim that the potential danger is small when compared to other industrial hazards such as electricity and acids. The point is that no firm in the country would forego using electric power because the shock could possibly kill somebody. Industry has learned to live with the danger and it does everything it can to minimize it. It is only a question of time before this acceptance comes to the atomic energy field—but that day still looks quite a way off.

● Meanwhile, the nuclear industry has been busy developing new uses for radioisotope instruments. In addition to measuring the level of liquids, techniques determine the thickness of sheet materials, the area-of-weight of plastics, papers and converted products, the density of fluids, the filling of containers, and the weight-per-length of solids.

Most of the systems work much the same way. Each unit has two parts—a radiation source and a sensitive recorder that measures the intensity of the source. The principle is much the same as a photoelectric cell—anything that comes between the source and the recorder stops some of the rays and changes the reading. This can be used as an off-on switch (as with the level control) or to give an accurate, continuous thickness measurement (as with plastic strip). The radioactivity does not affect the product in any way as it passes through.

Uses which have already proved themselves include:

● **Level detection and continuous level measurement** (about \$500). Accuracies up to 1/8-in. can be held. Can be adapted to give continuous indication of the level in tank or bin.

● **Strip thickness control** (\$30,000-\$40,000). Unit measures strip metal as it comes off the rolling mill allowing instant adjustment of the manufacturing process to keep thickness within tolerance levels. Has been used for an endless variety of strip materials including metal, rubber, plastic, boxboard, paper, abrasives, and cigarettes.

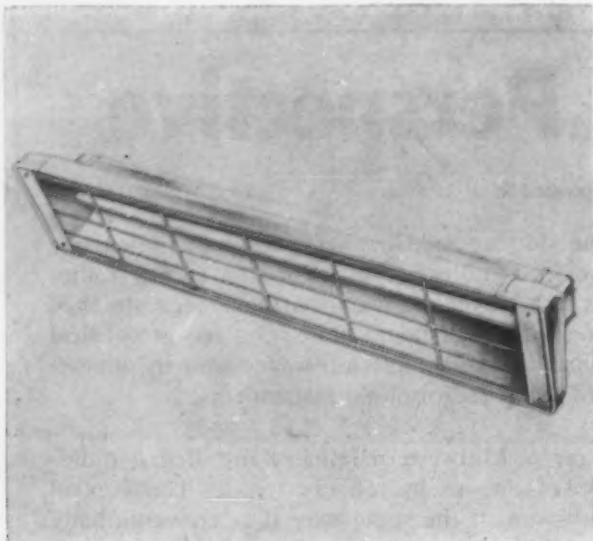
● **Inspection of containers.** Measures height of liquid or dry fill in cans and packages—activates control to correct level whenever it gets too low or high. Can also be used as a final inspection to remove improperly filled cans from the line before capping.

● **Area-weight control.** Used on rubber calendering machines, vinyl coating fabrics, calendering floor tiles, etc. Machine automatically measures thickness of the coating applied to base material—improves uniformity and saves on material cost since a narrow tolerance can be held.

● **Density measurements.** Gives continuous reading of density, specific gravity, per cent solids, etc. It makes these measurements outside the pipe never touching the material. Used in coal preparation, food processing, paper mills, petroleum refining, etc.

Your Guide to New Products

(Continued from page 41)



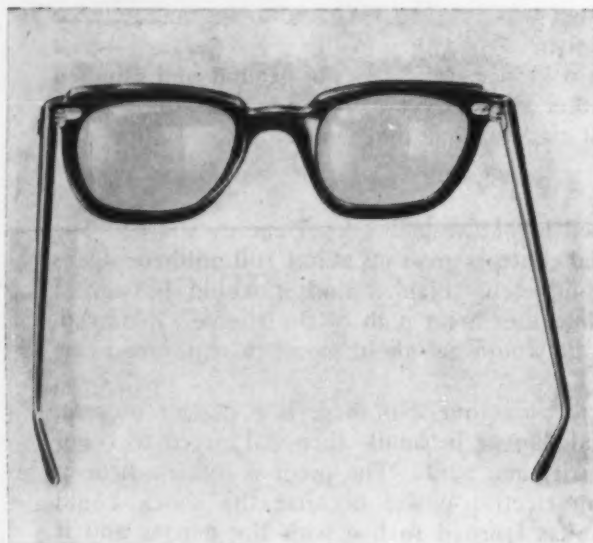
Heaters

Uses Infra-Red Rays

Infra-red focused electric heater can spot heat any outdoor or indoor area. Heating element encased in a fused quartz tube. Available in 110, 208, and 230 v. models. Can be turned on-off by regular switch. Also can be used in industrial drying operations.

Price: \$85. Delivery: immediate.

Wiggin Products Co., Inc., 50 Terminal St., Boston, Mass. (P.W., 9/14/59)



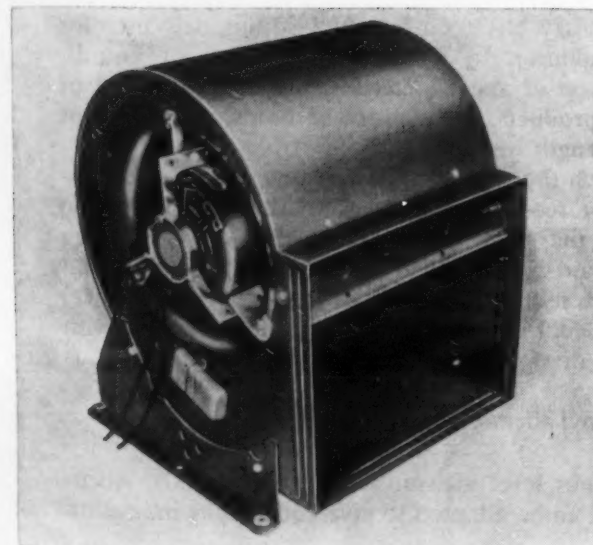
Safety Glasses

Fit Many Sizes

Safety glasses have a variable bridge that is proportioned to the eye size of the frame in a manner that permits correct fitting to over 95% of employees. Lenses can be supplied in hardened glass or in lightweight plastic in plain or prescription.

Price: \$2.35 to \$3.85. Delivery: immediate.

United States Safety Service Co., 1535 Walnut St., Kansas City, Mo. (P.W., 9/14/59)



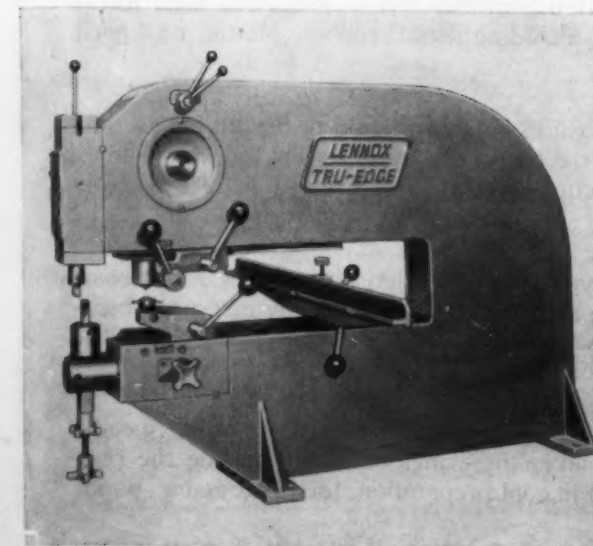
Motor-Blower

Air-Flow Fixed

Blower automatically adjusts its speed to compensate for changes in internal resistance of the furnace or in ductwork to keep the flow of air constant. Bearings will run 20,000 hr. without lubrication. Unit is preassembled, ready to plug in.

Price: \$23.80 to \$26.95. Delivery: evaluation samples available.

Viking Air Products, 5601 Walworth Ave., Cleveland, Ohio (P.W., 9/14/59)



Forming Machine

For Bench Work

Bench model shearing, forming and piercing machine has only 5 moving parts, is equipped with a 1/2 hp., 110 v. motor. Stroke length is variable from .022 to .110. Strokes per minute are varied from 1,750 to 3,500 automatically according to material thickness.

Price: \$875. Delivery: October.

Lennox Tool & Machine Builders, Dept. 136, Lima, Ohio (P.W., 9/14/59)

Grinding Wheel Data Sheet Cuts Errors

Purchasing Week presents the second in its new series of data sheets. (The first, on electric motors, appeared on Aug. 24). Data sheets, properly filled out, eliminate misunderstandings between P. A. and supplier—speed delivery.

Purchasing Week asked major grinding wheel manufacturers what information they needed to quote a price for a wheel. Result: the sheet printed below. A.S.A. standards that influence wheel selection are included for reference.

Grinding Wheels

Company Name

Address

Quantity Desired

Size:

Outer Diameter (D) Thickness (T) Arbor Hole (H)

Other Dimensions (give letter and size)

Tolerances (if necessary)

Shapes (see below):

Standard Shape No. Face No. If special, attach sketch.

Specifications (see below):

Kind Abrasive Grain Size Grade Structure

Type Bond Manufacturer's No.

Operating Features:

Material to Be Ground Machine Spindle Speed

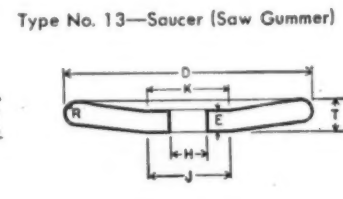
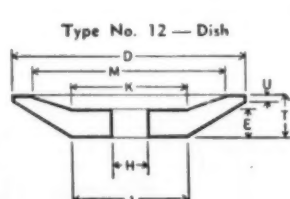
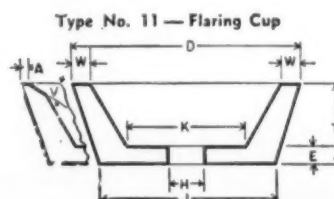
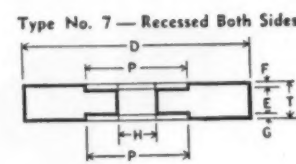
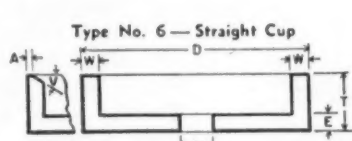
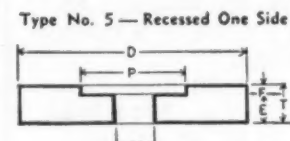
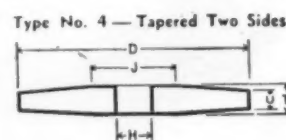
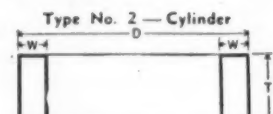
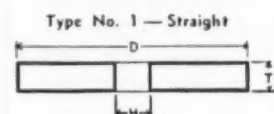
Wet or Dry Lubricant Used

Type Wheel Previously Used

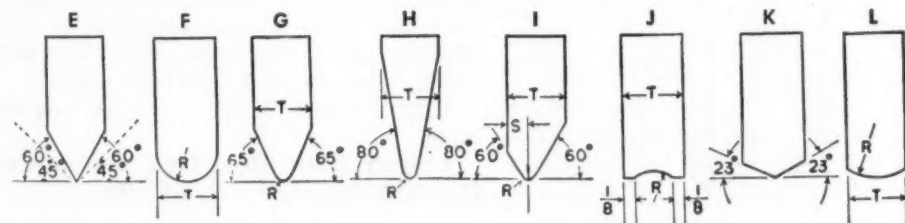
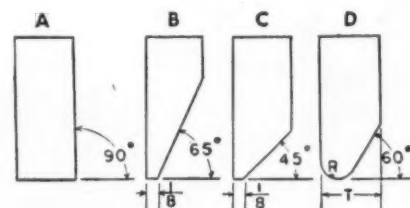
Type Machine

Wheel Standards

Shapes (National Bureau of Standards)



Faces (National Bureau of Standards)



Marking Specifications (A.S.A.)

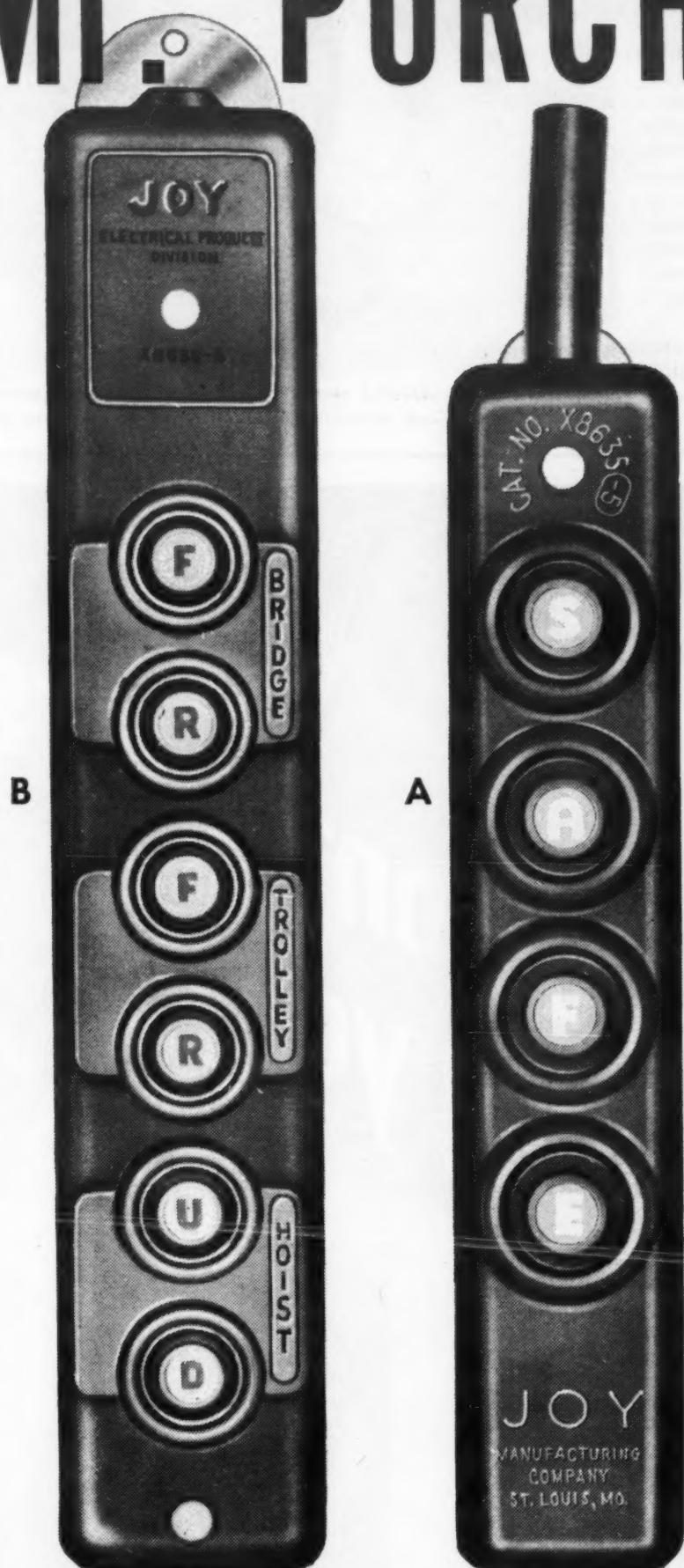
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Microfilm File and Reader System Saves P.A.'s 90% Searching Time

New 'Vendor-Specs-Micro-File' Process Locates Vendors Quickly, Giving Complete Information

Denver—A newly developed microfilm filing and reader system claims to save 90% of the time now spent by purchasing agents in product searching.

The copyrighted system, called "Vendor-Specs-Micro-File," was developed by Technical Services here in cooperation with the Recordak Corp., subsidiary of Eastman Kodak. All equipment is furnished by Recordak.

The service is being offered for lease in aircraft and missiles manufacturing fields where a central catalogue library of some 400,000 pages is average for each company.

Richard H. O'Brien, vice president and general manager of Technical Services, said the firm is preparing micro-files for buyers and engineers in other industries ranging from communication equipment and electronics to automotive and machinery. He said they will be completed and marketed during 1960.

O'Brien explained that the V.S.M.F. system makes it possible to locate quickly the desired product page and to make a photocopy of the page in seconds to release the microfilm library for use by others.

The microfilm reels group in sequence the catalogue pages of all companies supplying a particular product. This enables the buyers to view in sequence the offerings of all vendors on a full-size 13x13-in. screen.

A high speed control switch makes it possible, once a component and its manufacturer has been selected, to flash on the viewing screen a list of the sales and engineering offices of the vendor firm in all parts of the country, complete with telephone numbers and the names of key personnel.

Technical Services said its

Emory Industries, Inc. Plans Plant Expansion To Up Acid Production

Cincinnati, Ohio—Emery Industries, Inc., has begun a \$6 million plant expansion project to increase the existing capacity for production of azelaic and pelargonic acids from oleic acid by ozone oxidation.

The program also includes plans for greater esterification capacity for Emery's line of Plastolein Plasticizers, and Eloleins diesters for jet engine lubricants.

Plastolein Plasticizers — the diesters of azelaic acid—have found widespread use in auto and furniture upholstery, vinyl film and sheeting, footwear, luggage and extruded vinyl products.

Pelargonic acid finds considerable utility in the manufacture of resins and polymers. As a modifying acid in these uses it is competitive with the low-molecular-weight fatty acids derived from coconut oil, including capric, caprylic, caproic, and lauric. It offers the advantage of higher quality, especially color, and, at the same time, is not subject to the extreme price fluctuations of the coconut oil market.

products in our microfilm library actually is far under the cost of printing and distributing catalogues."

He explained that the index system includes cross-referencing that makes it possible to locate a product under several different names. For example: A stainless steel, semi-finished, hexagon-head machine screw nut can be located, along with all firms making it, by looking in the index under anything from "hex-head" to "screw nut" to "machine nut."

The Vendor-Specs-Micro-File holds several hundred thousand pages of catalogue information in less than desk-top space, the company added.



VENDOR-SPECS-MICRO-FILE stores the same materials 15 four-drawer letter files would hold, without the added effort of searching through.

MEAD Bonded Containers now bring you



— a new concept in corrugated containers that can help cut your



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Mead Container Power smooths your product's way through distribution channels—through better handling, stacking, identification on the loading dock, in the warehouse, in the stock room, on the sales floor.

California Trucking Association Asks Surcharge On Bay Area Shipments to Offset Higher Labor

Berkeley, Calif.—The California Trucking Association has urged the State Public Utilities Commission to assess a surcharge on shipments in the 14-county Bay Area from Monterey to Mendocino County to meet higher labor costs.

J. C. Kaspar, C.T.A. economist, testified before Examiner Carter R. Bishop that July's wage boost to seven Bay Area Teamster locals raised labor costs of member firms by almost 10%. He said total hourly labor costs rose to \$3.32-\$3.67 compared

with \$3.18-\$3.30 in Southern California.

Kaspar said the trucking association is seeking an assessed surcharge on shipments ranging from 13¢ at the lowest to \$4.50 maximum on each shipment to and from the area and shipments to points within the area. He said this would average between 3 and 4% and would reach 6% at the most.

Further hearings will be held later this month, with no decision on the surcharge request expected until October.

Aluminum Nudges Copper Wire in Coil Market

Alcoa Predicts Aluminum Foil, Sheets Will Make Sizable Inroads in the Field Dominated by Copper

Pittsburgh—Coil manufacturers are turning to aluminum sheet strip conductors and the new material appears ready to edge strongly into a market long exclusively dominated by copper wire.

Aluminum Co. of America reported today that current activities by more than a dozen electromagnetic coil manufacturers indicate that aluminum foil or

sheet is about to make sizable inroads into the coil field.

Alcoa opened a coil development program a year ago and in that time its research laboratory has wound more than 200 different coils to specifications supplied by some 150 coil manufacturers.

R. R. Cope, head of Alcoa's strip conductor program, said results indicate that aluminum-

strip-wound coils are about to become a general market item. Already in regular production or on production schedules are strip-wound types in: dry-type distribution transformers, aircraft and electronic solenoids, motor vehicle alternators, clutch coils for heavy duty equipment, lifting magnets, and arc welding equipment.

Alcoa said at least five manufacturers are ready to custom-wind any type of strip coil.

A technical analysis of the mechanical and electrical performance characteristics of strip-wound coils will be published this fall, summarizing test and service experience reports submitted to Alcoa by manufacturers for which it has supplied sample coils.

The strip conductor principle dates from the late 1800's and at least one major company, Square D Co.'s E.C. & M Division, at Cleveland, has been producing strip coils for large lifting magnets for 30 years. But general interest in aluminum usage has developed only since World War II.

LeTourneau Now Offers Steel Plate

Longview, Texas—The steel division of R. G. LeTourneau, Inc., has become a new source of supply in the strike-tight steel plate market.

In a move to further diversify an extensive product line, the di-



MOLTEN STEEL pours into ingot molds at LeTourneau's Texas mill.

vision upped production to offer high quality steel plate on the open market.

Output of its 300-tpd. mill includes a wide variety of electric-furnace, laboratory-controlled plate. It previously supplied only LeTourneau manufacturing facilities here and at Vicksburg, Miss., plus a very limited number of outside accounts.

The steel division also is specializing in a new high strength nickel alloyed plate which the company developed for fabricating its own ultra-heavy equipment.

Continental Plans Plant

Shoreham, Mich.—Continental Can Co. has announced plans for a new plant equipped to produce 250 million cans a year. The plant, along with a warehouse, will be designed to allow for expansion to double-capacity production and addition of lacquer-coating and end-fabricating equipment.



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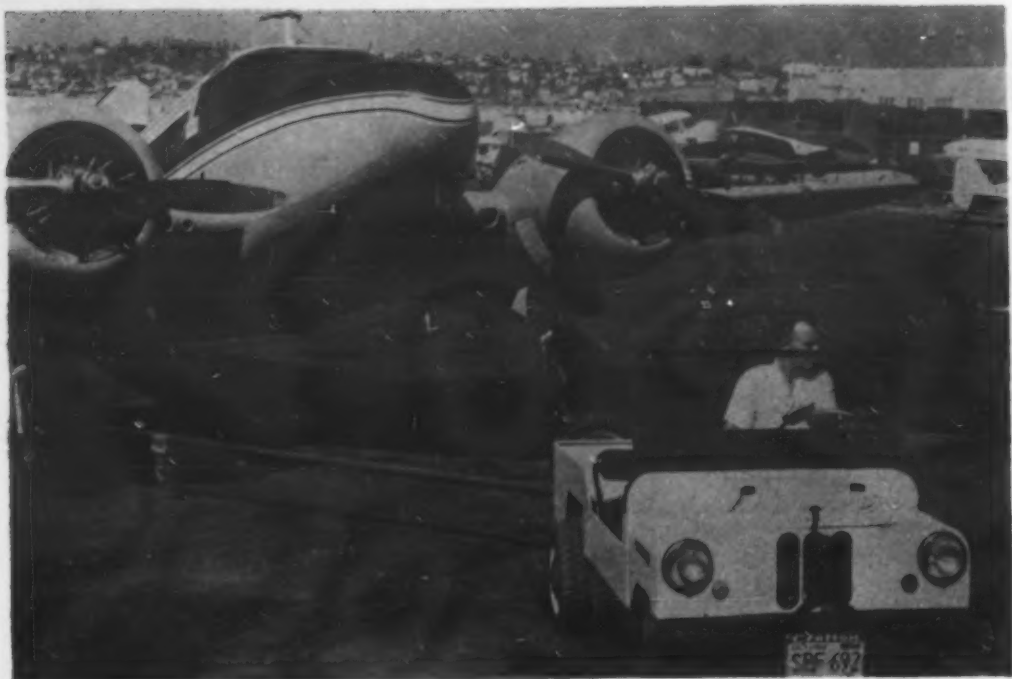
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CROFTON'S 'BUG,' utilitarian version of first U. S. Small car—the Crosley—is specially designed for airport, industrial plant, and business use and sells for \$1,350.

Jeep-Like 'Bug' Set to Take a Bow in January

Car Is a Utilitarian
Version of the Crosley

San Diego, Cal.—Latest entry in the small-car parade is the \$1,350, jeep-like "Bug," designed by the Crofton Marine Engineering Co. for specific use in airports, industrial plants, and business firms.

Powered by a 35-hp. gasoline engine, the 1,100-lb. Bug is an improved, utilitarian version of America's original small car—the Crosley—which stopped production in 1952.

(Crofton has obtained the inventories and engine manufacturing rights of Crosley engines and parts.)

Crofton will manufacture 500 of the new cars in 1960 with first deliveries scheduled for January. The Bug will be crated to permit shipment at straight freight rates.

Claims 35 Miles Per Gallon

The Crofton vehicle claims 35 miles on a gallon and has rate-cargo capacities of 1,000 pounds. They are half as large and one-third as heavy as a jeep and will be produced in only one size, shape and color—bright yellow.

The engine is a 44-cubic-inch, overhead-cam, liquid-cooled, Crofton-designed descendant of the Crosley motor. It has a commercial Crosley front-end design, a larger rear body, heavier rear

axle, torque-lock rear end, synchromesh transmission, new hydraulic brakes and stepped-up performance.

Other specifications include a 58-inch wheel base, 103-inch overall length, 44-inch overall width, and a wheel span of 40 inches.

Company officials anticipate no pleasure-use market for the Bug, which, in addition to industry, can be used effectively at ranches, parks, golf courses and beaches.

North Carolina Continues Standardization Program

Raleigh, N. C.—The State of North Carolina has embarked on a purchasing standardization program.

Gov. Luther Hodges last week named a standardization committee called for by the 1959 General Assembly. The committee includes the director of the State Department of Administration and representatives from North Carolina State College, the State Highway Commission, the School Planning Division, and the Budget Advisory Commission.

The committee will codify specifications of the various state departments to facilitate quantity purchases of one brand or type of equipment. The group also will seek to improve quality of purchased items.

Business Forms Boom to \$1-Billion Bonanza

Hamilton, N. Y.—American industry spent over \$1 billion last year on the printing of business forms, a printing industry executive told an American Management Association seminar on office management at Colgate University.

Alven S. Ghertner, president of Cul-lom & Ghertner Co., a Nashville, Tenn., printing firm, pointed out management's heavy responsibility for wise handling of this outlay and suggested the following procedures for economic purchase and printing of business forms:

- Select the proper papers for the forms.

- Print forms in combination runs.
- Ship forms in bulk shipments.
- Carry small inventories of forms.
- Centralize forms purchasing.

Ghertner said company-owned printing plants should be used only for producing short-run printing jobs and other special projects. "Larger, more complex printing jobs should be handled by outside firms who can do such work more efficiently and economically," he emphasized at the seminar.

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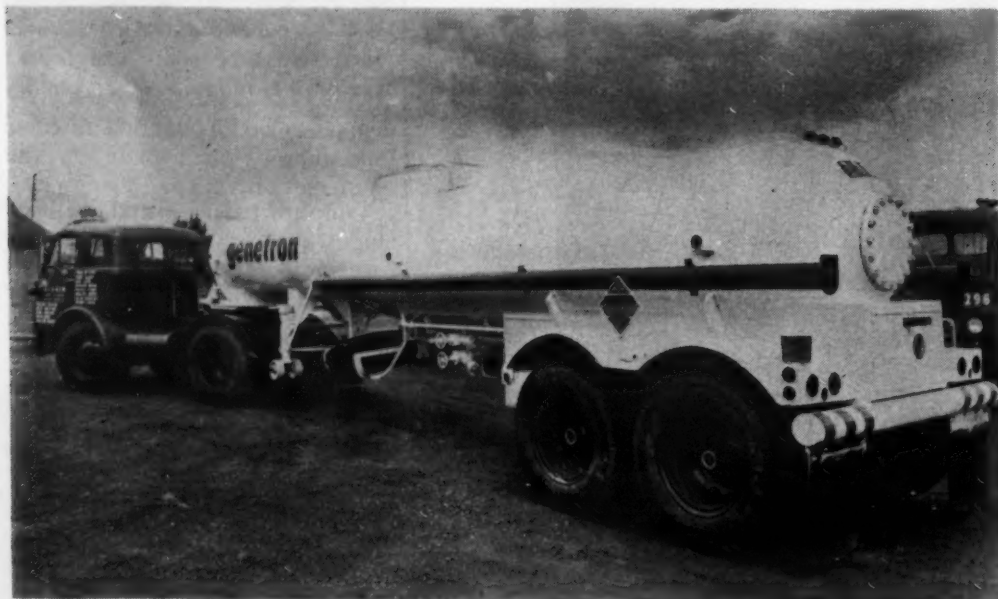
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Delta Truck Designs New Twin-Compartment Tank Truck

Baton Rouge, La.—A new line of twin-compartment tank-truck transports has been designed by Delta Tank Mfg. Co. to carry liquefied gases such as refrigerants, aerosol propellants, carbon dioxide, and methyl chloride.

The first new units in service are being put into operation in order to transport Genetron, a refrigerant produced by the General Chemical Division of Allied Chemical Corp.

The unique neck-down transports are equipped with separate pipe lines for each of their individual compartments. This permits hauling two different liquids on the same run.

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"PURCHASING WEEK"

States Clamp Lid Down on Foreign Imports

Special Statutes and Buying Policies Favoring U. S. Industry Are Mushrooming, P.W. Survey Reveals

(Continued from page 1)
becoming a serious and complex problem because of their set "modus operandi"—buying at the lowest bid.

"Low-labor cost foreign manufacturers can underbid domestic firms on just about every like product imaginable," declared one state purchasing director. "It's a problem that has to be resolved one way or the other."

Many public buyers, however, feel that "freezing out" foreign competition through laws and regulations is not the best solution. In fact, some believe it can lead to greater problems in the long run.

More than 65% of the governmental P.A.'s replying to the query felt the quandary could best be settled by inserting a "differential level clause" in each

purchase contract, favoring American manufacturers.

While opinions on what a fair and just level might be ranged anywhere from 5-25%, the average centered around 10%.

"We would welcome a differential level clause favoring U. S. firms," commented Robert L. Hudgens, purchasing contract supervisor for Arkansas. "Such a level is inevitable. However, I believe a fair level should be determined by an opinion of the majority."

Fred Calin, P.A. for Los

Angeles County, is convinced that domestic manufacturers must be assured sufficient protection to "preclude their being drowned in a sea of low-labor cost foreign imports."

"I am generally opposed to the purchase of goods of foreign manufacture, particularly inasmuch as I am purchasing for a tax-supported body," he told PURCHASING WEEK. "However, if foreign items are to be purchased, I would consider a 20% price differential a fair one for consideration."

"Foreign imports present an ever-growing problem," said John R. Dyer, state purchasing agent for Maine and president of the

National Association of State Purchasing Officials. "P.A.'s are faced with it oftener now than ever before."

Speaking for Maine and not as president of N.A.S.P.O., Dyer added, "I dislike 'differentials' for anyone, although this is a slightly different matter. I would vote in favor of them if it becomes necessary to protect our national economy."

Others, however, such as John Krieg, city purchasing agent for Cincinnati, Ohio, are definitely opposed to limiting foreign bids either through laws, policies or preference clauses favoring domestic industries.

Opposed to Differential

"I would oppose the establishment of a percentage differential in favor of U. S. products," Krieg insisted. "In fact, we have had an increasing number of bids on foreign products during the past three years and have purchased several items of foreign manufacture at considerable savings to the taxpayers."

"These items included electric cable, calculators, typewriters, duplicating machines, X-ray film, micro slides, and others, when the evaluation of price, usage, service, maintenance, and other similar criteria as applicable to the particular product, resulted in a determination that such bids constituted the 'lowest and best' bid."

Krieg added, "It is my belief that the impact of foreign goods offers will increase tremendously over the next few years, unless some international happening should occur to disrupt the flow of goods."

The Indirect Approach

The survey also brought out the fact that more American manufacturers are setting up facilities abroad to take advantage of low labor costs and other inherent benefits, and whether the items produced abroad by these firms are considered foreign or domestic goods. Opinions were divided.

"I would consider these products American goods if the earnings of the corporations are taxed in the United States," offered William R. Henderson, state purchasing director of North Carolina.

"If the earnings are not taxed in this country, I would consider them foreign goods. However, under either set of circumstances, I would buy them under the existing laws of the State of North Carolina."

Donald B. Moore, Pennsylvania's purchasing director, said, "Generally speaking, if the item is assembled abroad, it should be considered foreign. If it is assembled in this country, it should be considered domestic."

It All Depends . . .

The majority of respondents said they would consider such products "foreign-made," but said they would buy this type of product before buying one produced by a strictly foreign manufacturer.

John Ward, purchasing agent for the city of Chicago, summed up the feelings of many public buyers when he said:

"While I must buy foreign goods under our present statutes, foreign products are becoming a serious threat to American labor and subsequently will affect our national economy."

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Convair Runs a Course to Minimize Effects of Non-Competitive Buying

Sixty Top Purchasing Managers Learn New Tricks In Cost Analysis by Using Case-Study Approach

San Diego, Calif.—General Dynamic's Convair (Astronautics) Division is teaching its key procurement men better ways to get the most for their dollars in non-competitive contract situations.

Spotting a need to improve the company's subcontracting program, Convair called in Harbridge House, Inc., a Boston management consultant firm, to provide a case method type of instruction from a course originally designed for Air Force procurement personnel.

Sixty top members from the aeronautical firm's purchasing, estimating, and contracts department last week completed four weeks of classroom group discussions and examination of solutions to special purchasing problems.

The course was designed especially to provide new tools with which to arrive at fair and reasonable prices when competition is not available.

"Purchasing personnel must constantly strive to improve analytical techniques used in pricing weapon components in order that the national defense effort get the maximum weaponry from the defense dollar," said R. H. Biron, vice-president (administration) for Convair, at the last official session.

Stating that the success of any company is largely dependent on its pricing system, Biron called on graduates to make every effort to improve professional competence in order to meet the demands of a rapidly improving and expanding technology.

The course, originally developed as a 14-week program for Air Force personnel, will become a regular part of Convair's effort to improve professional development. The first run-through proved so popular it became necessary to maintain open classroom space on a rotating basis for visitors from other Convair departments.

R. T. Lyles, chief of material control at Convair-Astronautics, said similar training should be of extreme interest to other defense contractors. He noted that about 745 in San Diego County alone are suppliers for the Atlas ICBM, which Astronautics builds.

"Prices, Costs and Contracts" was taught by Paul R. Ignatius, P. B. Laubach, and L. H. Falk, all of Harbridge House, Inc. Dick Pfferdner, of Convair-Astronautics, was Coordinator of the course, which was held at an outlying Convair facility in San Diego.

Buying, Supply Men Will Head Metal Symposium

Washington—A railroad purchasing agent, a defense department surplus chief, and a federal business-defense service coordinator will discuss government and industry problems at a meeting of waste material dealers here Sept. 24.

The purchasing executive will be Virgil N. Dawson of the Baltimore & Ohio Railroad. Government officials scheduled to participate are Col. John F. Rey, chief of the Defense Department's surplus disposal branch, and Harold B. McCoy, Business and Defense Services administrator.

The symposium will highlight the metal session of the Atlantic division regional meeting of the National Association of Waste Material Dealers.

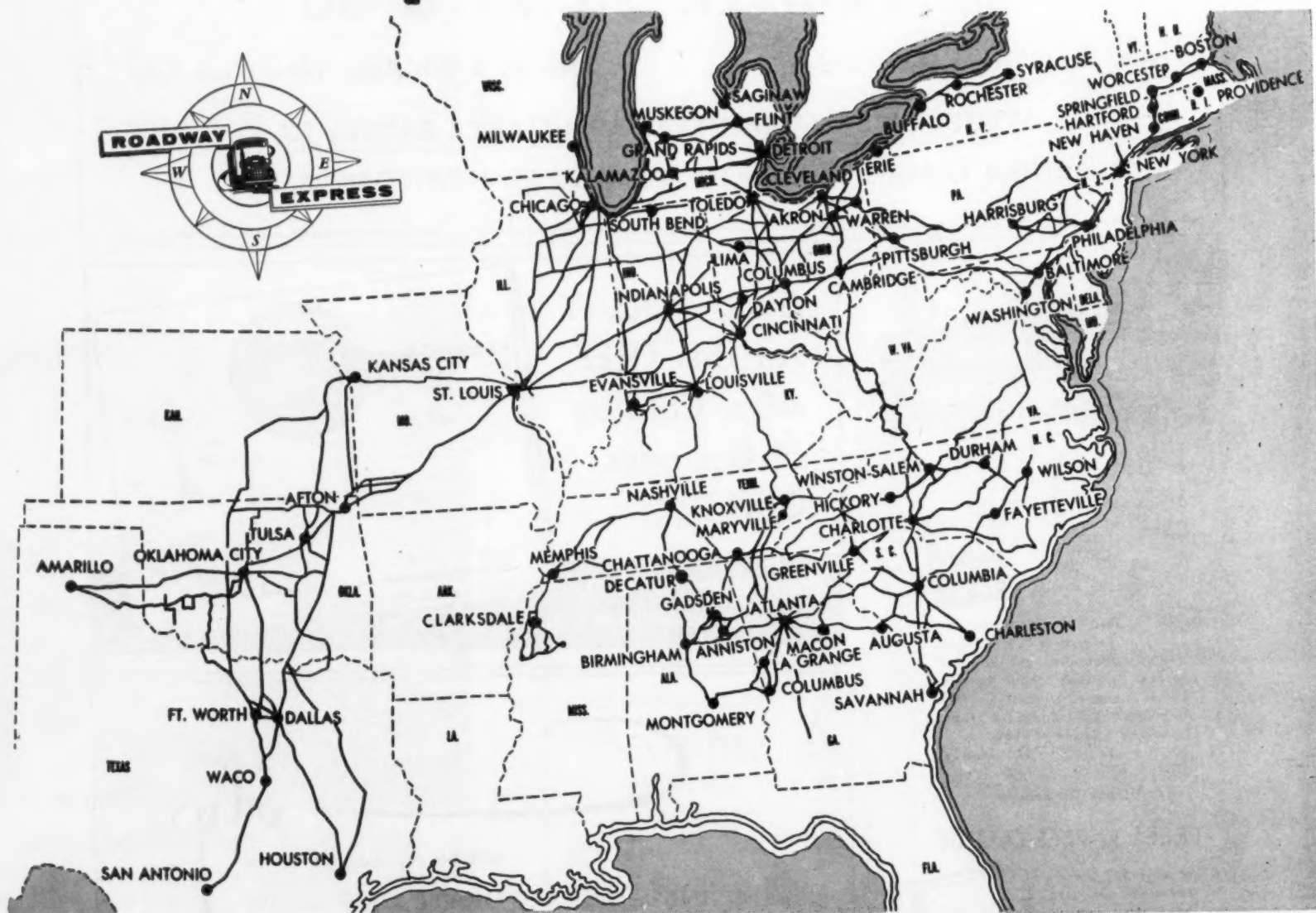


PURCHASING GRADUATES get congratulations from new 'alma mater', Convair. General Dynamics'

Division gave month-long course to 60 procurement men to improve work on prices, costs, contracts.



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Market Researchers Say Imports From Japan Are 'a Real Bargain'

Said to Compare Favorably with American Quality, Japanese Goods Are Finding Greater Acceptance

Washington—Market research experts are advising importers of Japanese goods to adopt a double-barrelled argument in efforts to push the sale of Japanese goods.

Importers are urged first to stress the line that Japanese goods are "a real bargain—comparable to American quality, but at a lower price, and made by people with an excellent sense of product design."

The other leg of the suggested campaign suggests emphasizing the point that "many Japanese products cost more (not less) than U. S. products, because of their quality or beauty—and are widely accepted as gifts."

The advice came in a long-awaited report on a survey of

consumer attitudes prepared for the U. S.-Japan Trade Council.

The report, compiled by Daniel Yankelovich, stressed the finding that the U. S. consumer while still wary of a "made in Japan" label, is apparently less so than he used to be. The same point—a stigma of poor quality—was made by Japanese exporters recently in discussing their industrial and consumer marketing

plans in the United State (see P.W., Aug. 17, '59, p. 1).

In his study, Yankelovich, a market research advisor, found that three buyers out of five believe that: "If you know how to judge the quality of a product, you can often find Japanese products which are less expensive and just as good as American-made products."

These and other findings came from "depth" interviews of consumers in Atlanta, Denver, Omaha, and Philadelphia.

More than three-fourths of those interviewed favor more liberal international trade as a tool for peace, and preventing the advance of international Communism.

As for trade with Japan, the

council found that 36% opposed greater U. S. trade with Japan, 29% were for it. Of the pro side, 63% gave as their reason the belief that it would "help support Japan against Communism," whereas 36% thought it would benefit the U. S. economy and consumer. Even among those who did not want to buy Japanese products, only 16% attributed it to the "poor quality" of Japanese products.

The most serious obstacle Japanese imports face in this country is still the "image" that consumers hold of Japanese products and even their skills. For example, 78% of the people polled opined that Japanese quality is below that of U. S. products. A bare 6% thought

"you can be certain their products will last a long time." Yet one-third of the interviewees perceived "improvement" in Japanese products—to a level at least close to U. S. quality. And 71% recognized that Japan has "gained a great deal of manufacturing know-how."

The respondents credited Japanese exports with the advantage of lower price without sacrificing quality—more than they credited Germany or Switzerland, which scored much higher in general ratings.

It was on the basis of these and other findings that Yankelovich proposed his two-way formula to stress both the bargain and quality potentialities of a "made in Japan" label.

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Air Force Again Warns Contractors To Pare Costs, Especially Overhead

Miami Beach—The budget-conscious Air Force warned its contractors again last week—keep a sharper eye on costs and pare down wherever possible, especially in the overhead category of costs.

Top Air Force procurement officials, meeting with industry executives at the annual Air Force Association convention here last week, reiterated plans to tighten buying rules.

Certificates of Accuracy

A congressional suggestion that the Air Force require contractors to certify the accuracy of their cost estimates already is in effect for many companies (see P. W. June 15, '59 p. 1). More are being asked to sign certificates attesting to the accuracy of their cost information—a cost-trimming device soon to be required of contractors holding more than \$100,000 in contracts for the Air Force.

Lt. Gen. M. E. Bradley, Jr.,

deputy chief of staff, materiel, underscored Pentagon concern about Congressional complaints. "You can help us improve our position before Congress if you will cooperate," Bradley declared, adding a plug for more concern about overhead costs.

'Tolerates Overhead'

Ask why overhead costs have not dropped, Bradley said: "I think the reason is that industry tolerates overhead."

Bradley also criticized contractors for delays which occur "because negotiators are (often) reluctant to disclose information to our auditors and price analysts," thus resulting in lengthy price negotiations in getting contracts nailed down.

The Air Force announced earlier this summer that it was hiring 203 new auditors to tighten verification of price proposals and cost estimates submitted by its procurement contractors for defense work.

Value Analysis, Space Technology, Headline Standards Conference

Detroit, Mich.—Value analysis in purchasing, standards in space technology, and relative values of inch and metric systems will headline the Tenth National Conference on Standards at the Sheraton-Cadillac Hotel, here, Oct. 20-22.

The annual conference is sponsored by the American Standards Association as a forum through which industry, government, and the public can keep abreast of latest developments in standardization.

In an N.A.P.A.-sponsored session E. Philip Kron, assistant purchasing director at Eastman Kodak, will outline methods of increasing profits with value analysis.

Wilbur J. Pierce, supervisor of staff services in the purchasing department at Detroit Edison Co., will moderate a panel and group discussion on "Standards and Specifications." Panelists are Kron, Harry B. Worster, director of Purchases, Wynadotte Chemicals Corp., and William D. Schelbe, purchasing director, Wolverine Tube Division, Calumet & Hecla, Inc.

Other highlights of the national conference will include a keynote address on "Standardization as a Keystone of Industrial Progress," Ralph Isbrandt, director of automotive engineering and research, American Motors Corp.

In other sessions, industry leaders will take up such subjects as "Six Easy Ways to Save Money in Fasteners"; "The New American Pallet Sizes;" and "Containerization—Problems and Advantages of Standardization."

State's New System Cutting Purchase Costs

Oklahoma City, Okla.—The state's new central purchasing system is already starting to reap cost reductions. One of the first economies noticed has been in the grocery bills for state institutions.

J. R. Wilson, state purchasing director, released a list of 24 recently purchased items, showing savings made under the new system over prices previously paid by the institutions.

The price of mixed vegetables, for one example, was reduced from 21¢ per lb. to 18¢. Other reductions were made on food items ranging from cherries to broccoli spears, and from salami to canned hams.

Packaging Men Foresee Two Big Jumps Ahead

New York—Packaging machinery manufacturers predict sales of machinery and related packaging materials will reflect a 24.6% increase this year and take another 27.3% jump in 1960.

This was the conclusion of a survey made by the Packaging Machinery Manufacturers Institute among those firms that will exhibit their wares at the P.M.M.I. show Nov. 17-20 at the New York Coliseum.

The institute noted a strong pickup in packaging machinery orders in recent months.

Management Memos

(This is a new PURCHASING WEEK feature that will appear from time to time to keep you up to date on significant developments in purchasing management.—Ed.)

How Big Is the P.A.'s Job?

Here's the latest ammunition for the P.A.'s battle for management recognition . . . costs of purchased goods and services as compared with all other costs in manufacturing companies. The punch is supplied through courtesy of the First National City Bank of New York in its September monthly bank letter. The bank again broke down the sales or revenue dollars of the 100 largest U. S. non-financial corporations, and found, as always, that "the cost of goods and services" is by far the largest disbursement segment of the sales pie. And . . . this cost is over twice that of managements' favorite whipping boy and boogie-man, labor.

Here are the figures (for year 1958):

Costs	Total (millions)	Per Cent of Receipts
Total receipts from sales, revenues, etc.	\$141,610	100.0
Costs of goods and services purchased		
From others	77,009	54.4
Wages, salaries, and labor benefits*	37,682	26.6
Provisions for depreciation and depletion	6,550	4.6
Interest paid	1,001	.7
Income taxes	5,942	4.2
Other federal, state, local & foreign taxes	5,494	3.9
Total costs of operations	133,678	94.4
Net income	7,932	5.6
Preferred and common dividends paid	5,130	3.6
Retained in the business	2,802	2.0

* Partly estimated, on basis of payrolls reported by companies representing 82% of the total employment of the group.

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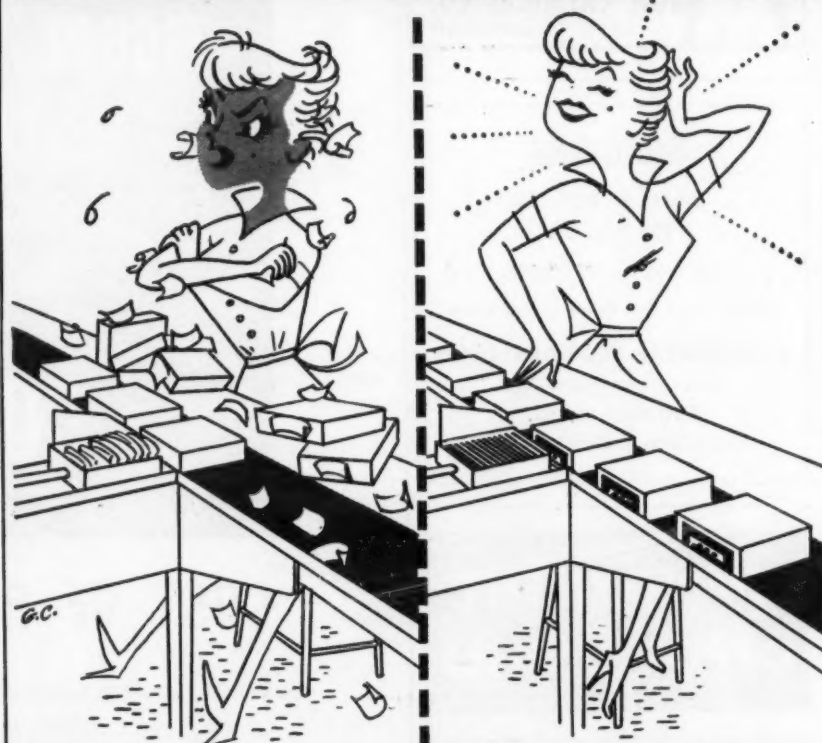
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Purchasing Perspective

On the Verge
Of a Splurge

(Continued from page 1)

tions. Thus, the base of still-buoyant hopes for continuing prosperity seems firmly founded.

Steel—Each day the strike continues, the importance of post-strike inventory rebuilding looms larger in the overall economic picture for next year. The strike already has caused sufficient depletion of inventories to assure a new round of rebuilding when it ends. And as this is an especially volatile sort of stimulus to business in general, purchasing inventory planners still face inventory control—dominated for nearly a year already by steel supply problems—as a major headache for 1959's fourth quarter and on into 1960.

Consumer demand—Expectation that consumers will remain in a buying mood is reason for the good cheer in Detroit. What you see happening there now would indicate there's nary a doubt 1960 will be one of the best years ever (see auto story, p. 1).

Automakers' industrial buying plans—highlighted by small car introduction and regular model restylings—provide for a breath-taking 1.9-million-car fourth quarter. Detroit doesn't necessarily expect the 1960-model production rate to be maintained year-long, but auto makers are taking inventory risks on the belief that the consumer is on the verge of what may be another 1955 buying splurge (see credit story, p. 3).

All this adds up to the fact that Mr. Consumer, in his demand for durables, holds the real answer to your 1960 production and inventory outlook.

Buyers of industrial rubber products are on the alert for possible price increases despite earlier assurances Akron rubber companies will go slow in recovering the cost of new labor contracts. Truck tires may provide the tipoff within the next two weeks.

Truck manufacturers report they already are receiving the word on higher tire prices in the offing. An International Harvester spokesman said last week: "We're anticipating our tire prices will go up on Oct. 1 between 2-5%. We know it's in the wind."

Vice President Nixon's Cabinet Committee on Price Stability believes more vigorous government policies can prevent future rises in the price level. In the second of its scheduled series of "informative" reports on inflation and prices, the Nixon group last week said history "gives a sound basis for optimism that vigilant and vigorous public policies can in all probability achieve reasonable stability of the general price level."

The committee—which said it will recommend policies later for maintaining price stability—based its conclusions on a review of wholesale and consumer prices dating back to George Washington's time.

The long-term sweep of prices showed that for nearly 2½ centuries the average price rise was something like ½% a year. But in the last 25 years price levels have doubled, mainly because recent wartime and peace time booms have produced permanent increases without off-setting price declines in recession periods.



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IN CANADA: Safety Supply Co., Toronto

English Urges Purchasers to Enter Politics

Milwaukee—In a challenge to long-standing Association neutrality on national legislative issues, N.A.P.A. President Thomas O. English stated last week: "It's time for the N.A.P.A. to stand up and be counted!"

Speaking before the Milwaukee Association of Purchasing Agents in the first of 10 Western appearances, English urged active participation by purchasing group members, advising, "Don't wait to be pushed" into political activities at either precinct or community level.

English, who is general purchasing agent at Aluminum Co. of America, Pittsburgh, declared the time had come for the N.A.P.A. to abandon its hands-off policy in public affairs and to take sides on philosophical and legislative issues which threaten free enterprise.

The N.A.P.A. president de-

voted the rest of his message to the future and the challenges it will bring to all purchasing people. While P. A.'s, he said, have acquired prestige and a degree of professional status, they should be doing some "thinking ahead" to the many problems they will have to meet.

He gave as examples the following:

Economic change—"One problem of importance and great interest," said English, "is the great rapidity of economic change in our country . . ."

"Not one purchasing agent can escape the effects of these changes." Purchasing agents not agile enough in mind and body to keep abreast of the times, English warned, will be swept aside.

New products—Great increases in research and develop-

ment, English said, will bring large numbers of new and different products. The P.A. must keep up with these developments to be "worth his salt."

Automation—English predicted that the paperwork of purchasing would be subject to automation and other vast changes.

Foreign competition—English cited a recent N.A.P.A. survey which revealed sharp increases in current purchasing of foreign goods by United States companies as compared with five years ago.

While noting that foreign trade is essential to the U.S., the N.A.P.A. president suggested the government reconsider existing tariff levels on imports from foreign countries which restrict entry of American products into overseas markets.

Capital Spending Booms Anew Following Lull

(Continued from page 1)
spend 9% more on such outlays this year than it did in 1957. (See table)

Total spending of \$33.3 billion this year would still be about 10% less than the \$37 billion spent during the previous capital goods boom year of 1957. But at the rate at which industries are upping expenditures (\$35.3-billion rate for the fourth quarter), capital outlays might approach the 1957 record levels by the first quarter of next year.

New Problems

Spending of this size would generate new problems for the Administration and the Federal Reserve Board in trying to beat off a new outbreak of inflation. Financing plant and equipment expansion would put added strains on the money markets, which have already been tightened up as an anti-inflation measure.

Leading the rush to greater expansion is the railroad industry, compensating for sharp cutbacks in capital spending last year. The rails are planning to spend more than \$1 billion for modernization and expansion of existing facilities this year. This is almost 50% more than had been anticipated just six months ago.

Financed from Outside

Much of the rail expansion is being financed by outside sources. The roads are going in for leasing of equipment in a big way.

Non-rail transportation companies also are heading into an expansion period. For the most part, this reflects record expenditures by the airlines as they move into the jet age. Partly, however, this includes increased expenditures by trucking firms as well.

Practically all major industries are slating larger second-half 1959 expenditures than for the first six months of the year. The only exception is electric power companies, which have trimmed planned outlays slightly after a period of heavy expansion.

For manufacturing groups, expenditures this year are figured at \$12.1 billion, an increase of \$1 billion from 1958. Fourth quarter manufacturing expenditures are estimated at 30% higher

than in the same period a year ago.

Sizable fourth quarter increases in capital spending are in store for metal producing and

metal working industries. Electrical machinery groups anticipate a 25% increase while non-electrical companies look for a jump of about one-third.

Capital Spending—Where It's Going

	1958	March Survey	Anticipated 1959 June Survey	Sept. Survey	Percent Change 1958-59 Latest Survey
Manufacturing	11,433	12,274	12,395	12,444	+ 9
Durables	5,469	5,827	6,012	6,020	+10
Non-durables . . .	5,964	6,447	6,383	6,424	+ 8
Mining	941	932	982	996	+ 6
Railroad	754	753	867	1,032	+37
Transportation,					
Other than rail . .	1,500	1,900	1,986	2,024	+35
Public utilities . . .	6,088	6,143	5,891	5,840	- 4
Commercial & other	9,810	9,790	10,444	10,919	+11
Total	30,526	31,792	32,565	33,255	+ 9

Source: Securities & Exchange Commission—Commerce Department.



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Railroads in East Study Possibility of Rate Cuts

I.C.C.'s 'Paint Case' Decision Kicks Off Flurry Of Studies on Other Commodity Rates by Rails

Washington—Many Eastern railroads have initiated rate-cut studies on a wide variety of commodities following the I. C. C.'s long-awaited decision last week on the so-called "paint case."

The commission sanctioned rail paint rate cuts by as much as 17.4% below current first-class rates despite strong protests from truckers. It failed, however, to write a "landmark" decision.

The railroads wanted the I. C. C. to make a clear-cut ruling on just how far the Transportation Act of 1958 freed them to juggle rates or offer them more competitive rate-making freedom.

It May Pay to Look

Nevertheless, many rail officials consider the decision a precedent and plan to scrutinize other areas in which rate reductions might bring a greater volume of business.

In support of its bid to cut paint rates selectively in order to recapture traffic, the rails pointed out to the commission that, while production of these goods increased some 15% between 1947 and 1956, the volume hauled by the rails had declined by 34%.

The railroads expect the new paint rates, which become effective Oct. 31, to increase their annual earnings by around \$1 million. The rates will apply in the so-called "official territory"—roughly from the Mississippi River east, including New Eng-

land states and as far south as Virginia.

The rates are subject to a minimum weight of 30,000 lb., with incentive rates approximately 10% lower than the base rates on the next 30,000 lb., and about 24% lower on any weight in excess of 60,000 lb.

"We regard this decision as a very fine precedent," Arthur Bayliss, vice president of sales and service for the New York Central, told PURCHASING WEEK. "We already have initiated studies to determine if rate-cuts on other commodities will increase the volume of traffic."

A spokesman for the Pennsylvania Railroad said the decision offered the kind of competitive freedom the railroads have been seeking. "Naturally, we are very pleased," he added.

No Rush in the West

Western railroads apparently are not planning to push through a flood of new tariffs as a result of the I. C. C. opinion, although most of them are studying it with an eye to future moves.

Guy Glover, traffic vice president for the Burlington, says his road has no rates waiting to be published, but "we'll certainly look around for some now that we have the right, although we think we've always had it."

The railroads expect truckers to counteract the decision by reducing their own paint rates.

Unions Assess Their New Difficulties

San Francisco—Several thousand delegates to the A.F.L.-C.I.O. convention converged here this week to hear an explanation of labor's new legislative and bargaining troubles from top union leaders. And they wanted to hear plans for a way out.

Federation president George

Sun Oil Vice President Urges Marketing Men To Cut Away at Costs

Rockland, Me.—Petroleum marketers must try harder to cut distribution costs, Sun Oil's marketing chief declared last week.

Sunoco Vice President Willard W. Wright said the cost challenge stems from the rapid advance in output per manhour at the refinery level.

Wright, addressing the Maine Petroleum Association, said the problem of achieving greater efficiency in distribution faces all American business. Specific competitive factors in petroleum include not only natural gas and electricity but also future inroads from nuclear energy and solar power.

Declaring that smaller, locally-known companies will always have a role in petroleum distribution, Wright said population shifts, new highways, and new competition "make it more desirable than ever for large suppliers to plan their distribution through local businessmen."

Meany and other top A.F.L.-C.I.O. leaders are in their toughest position since the labor merger four years ago. They have just lost a battle against a labor reform law in Congress, and there were no signs of a victory by the striking United Steelworkers in a bargaining battle that was being taken as a threat to the federation's 140 unions.

At the convention opening on Thursday (Sept. 17) Meany is ready to outline a new expanded union political program as the first move to seek repeal of the 1959 reform bill. And, the convention will set aside a day to rally support for the steel union.

However, there was evidence of dissatisfaction with the leaders that threatened to break out from the floor before the convention closes up at the end of next week. It would be the first open criticism directed at the A.F.L.-C.I.O. leadership at such a convention and it was a question whether explanations from the rostrum would satisfy the delegates.

Help for Maryland

Baltimore—Joint purchasing would help Maryland hospitals cut spiraling costs, a witness told a special Legislative Council meeting.

Baltimore Attorney Hyman A. Pressman suggested revisions in hospital buying and accounting practices in testimony on Blue Cross rate increase requests.

Auto Titans Happily Looking Forward to '60

(Continued from page 1)

auto industry's optimism—yet. Probably the best prepared of all of the big metal-consuming industries, the automakers, contend they have ample steel to supply dealers for the initial car sale splurge and at least production through October.

But if the strike is not settled by the end of September or until early October, November auto production cutbacks may be in the cards.

Parts suppliers may reach a supply crisis ahead of the car assemblers, and even the auto companies anticipate delays caused by post-strike steel production and shipment difficulties.

The Big (Compact) Three

Much of the passenger car optimism stems, of course, from the newly-introduced Corvair, Falcon, and Valiant. Detroit observers expect the market impact of these cars to be almost as revolutionary as that of the Model "T" of many years ago. But where the famous Ford product put the nation's families on wheels, the new small cars are expected to put each member of the family on his own wheels.

It is still much too early to tell from whom the Big Three entries will steal sales. American Motors' George Romney, father of the compact car trend, is firmly confident that his Ramblers will more than hold their own.

"By 1965," he predicts, "compact car sales will mount to 60% of the total market, and we will account for 25% of this bite." He figures that 2,250,000 "smaller" cars will be sold in 1960, and of this 1,750,000 will be "compact."

In other words, Romney computes Americans next year will buy around 500,000 imports, or about the same as in 1959. Romney also hopes to produce 500,000 Ramblers, so this year has a potential of 1,250,000 to be shared by the three newcomers and Studebaker's Lark.

Big Fleet Interest

If the Lark is any indication of burgeoning fleet buyer interest in the compact car, Studebaker's 1959 fleet sales represented 8% of passenger car production and 19% of truck sales. Represented in the total were 20 states and 130 governmental units.

Harold Churchill, Studebaker-Packard president, predicted last week that his fundamentally unchanged 1960 car will attract 200,000 buyers, some 60,000 more than in the 1959 model year.

It is hard at this writing to tell who will be hurt by compact cars. It could be the standard form of low-priced car, or the late-model used car. The latter already has suffered a severe drop in price.

What will happen to Chevrolets, Fords, and Plymouths as everyone knows them remains to be seen. Certainly Ramblers, Larks, and imports have made no directly traceable dent in their sales.

The new compact offerings are notable for austerity, even with their deluxe trim option. They are billed as six-passenger models, and their interior dimensions (and luggage capacity) do in reality compare quite favorably with a standard-sized car.

However, like anything short of a Cadillac or Lincoln, they are better qualified as having comfortable room for four adults and their toothbrushes.

Fleet owners should take a long look at the new compact car offerings, as well as Ramblers and Larks that have gained new stature from their competition. Detroit is offering every opportunity.

Two weeks ago, 300 major fleet operators from 50 states were invited by Ford to preview the Falcon. Consensus was cautious interest. First big buyers will probably be the rental operators.

Chevrolet's Corvair is the most unorthodox. It offers an air-cooled, mostly aluminum, horizontally-opposed, six-cylinder engine, mounted in the rear of a four-door, unitized body. A station wagon, also with a rear engine, will probably be built before the year is over.

Engine—Coming or Going?

Ford's Falcon is button-neat and orthodox. It is sold in two- and four-door sedan form with a wagon to follow in time for Chicago's January auto show. The engine is mounted in front, where, company executives say, "it should be." The car will cruise happily all day long at 70 mph. on regular gasoline, at an economy, according to Ford engineers, of about 30 miles per gal.

Steel 'Gray Market' Growing Active

(Continued from page 1)

now have been joined by some fairly large firms in the admittedly "desperate" category.

Here are some examples of the gradually accelerating snowball effects:

One large Midwest auto parts manufacturer admitted it has built up production supplies for October production only by going to the gray market.

The purchasing agent for a major supplier of automobile clutches said he is buying steel from sources charging double the normal warehouse premium.

Adolph Ruediger, Carrier Corp. purchasing director, who is keeping in close touch with the steel supply situation as head of the N.A.P.A. Steel Committee, said he had many reports of premium pricing, particularly in the Chicago area. He knows of instances where zinc coated stock obtained through a broker brought \$40 to \$60 above normal warehouse prices.

Ruediger emphasized however that major warehouses were sticking to normal pricing, that the out-of-line pricing came mainly from smaller, less reputable suppliers and through steel brokers.

The frantic search for supplies being staged by some firms is illustrated by the activities of a large appliance manufacturer. Two men are working practically full time just "looking, looking, and looking for anything we can get," the purchasing director said.

This firm and other companies already have begun making substitutions to keep their production going. One firm said it had just finished testing the feasibility of substituting different grades of silicon steel for their usual gage of metal and "thank God it works

Chrysler's Valiant, which will not be in volume production until mid-November, provides the most powerful engine, an overhead valve six that is inclined on its side to fit under the low hood. Styling features include a false spare tire cover on the trunk lid that covers 25 cu. ft. of luggage space.

Standard-size cars of interest to the fleet owner have not been neglected. Despite the rash of publicity on the new compact car offerings, hundreds of millions of dollars have been spent in re-styling standard-size models.

In addition to all new Fords, Chevrolets, and Plymouths, Dodge is introducing a Plymouth-sized and priced model called the Dart. It is available in six- and V-8 engined form.

Trucks See Changes Too

Trucks, too, have received a measure of engineering innovation normally reserved for passenger cars. Chevrolet's new models feature torsion-bar front suspension, with coil springs in the rear of smaller models, that produces a ride to rival any passenger car. G. M. C. Division has announced all-new V-6 and V-12, gasoline-fired engines that are the first of their kinds in the industry. This is in addition to a very broad line of diesels.

Truck makers also have gas turbines up their sleeves, but not for immediate sale.

—with no effect on quality."

Metal stampers appear to be holding up well although some steel items are getting short. One Chicago area firm says its pre-finished products such as terne plate will be completely out in two weeks. Another stamper, short on 20-gage sheet, said a small warehouse offered coil and strip for around \$12.75/hwt—in contrast to usual mill prices of about \$7.06 for some grades.

Another problem faced by some manufacturers is that their stored specialty steels now are warping. This means rerolling or line retooling at major expense in labor and time.

The gradually widening effects of the lengthy walkout—now the longest in modern steel industry history—were being watched closely in Washington. Presidential advisors were totaling the impact for possible eventual use of the Taft-Hartley law or some other form of emergency governmental intervention.

Industry observers placed two interpretations on President Eisenhower's letter last week which he admonished both union and industry negotiators to get back to serious bargaining. One view was that the White House was suggesting the industry could relax a bit on its no-concession stand. Another was that he was building a public record of his efforts to persuade the contestants into a settlement in the event he has to take more direct action. Both sides resumed bargaining sessions late in the week after blaming each other.

One bright spot—Universal-Cyclops Steel Corp.'s tool and specialty metals plants at Bridgeville and Titusville, Pa., resumed operations after an eight-week shutdown.

Building Today, with an Eye to Tomorrow



MEETING *of* MINDS!

Each of these men has an expert mind in his field—administrative, sales, finance, raw materials, production. Each contributes years of practical experience, rigorous theoretical knowledge and proven executive ability. Together they constitute Inland Steel Company's Products and Facilities Planning Committee—keeping a watchful eye on consumer and industrial trends and requirements, guiding the company's development and expansion.

To their attention are brought market studies, design forecasts, new product possibilities, material resource potentials, new production methods, future equipment needs. They are excellent listeners, they travel often to see for themselves, and they are doers—initiating programs which have upped Inland's steelmaking capacity 15% to 6,500,000 ingot tons in just three short years.

The work of this committee, like the future of America's expanding economy, is never ending. Keeping pace with midwest industrial growth, Inland completes each stage in its expansion plan and looks ahead . . . for the next job.



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The shrill sound of a horn
echoes in every shaft
to guard this mine's air supply against...

CUTOFF!



This is a Pennsylvania coal mine . . . Deep down in the earth, hundreds of men are working at the raw sides of jagged black tunnels.

At the surface, three giant fans—each remotely situated in the surrounding countryside—send fresh air sprawling through the many miles of entryway.

The link between man and fan is 4½ miles of Rome control cable!

Engineers at this mine* selected Rome control cable for the nerves of a meticulously engineered control system that guards the mine's vital air supply. A winking light in the control room means everything is running smoothly. But . . .

A shrieking horn means trouble! Before gases can accumulate in the mine—jeopardizing the lives of hundreds—repair crews get the signal and start working on the failing fan.

Cable for a control system such as this must be the ultimate in reliability. "We've had experience with Rome's borehole cable and other types of Rome cable," says the chief outside electrician, "so I recommended Rome's control cable for this important job."

It went up very quickly—a crew of seven strung the first 16,000 feet over rugged, wooded and hilly terrain in only 14 days. That's *half* the time such an installation normally takes. The reason? Rome supplied a factory-assembled self-supporting-type cable to save the time and expense of on-the-job assembly.

You depend on cable, too. Just as this coal mine relies on cable to breathe, your plant relies on cable for production—to drive machines and other plant equipment. Like the mine, you can't afford to take chances on power failures.

Rome Cable manufactures various types of thermosetting and thermoplastic control cables to meet specific electrical, environmental, installation and economic requirements. Call your nearest Rome Cable salesman today for help in selecting the precise cable you need.

*Name of mine furnished on request.



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THE
MAN**

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TO YOUR JOB
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